# **List of Attachments**

Attachment	Attachment Description		
No.	DCDA D . D		
1	RCRA Part B permit		
2	Manifests and LDR example		
3	Manifest #002619256 FLE		
4	Manifest #003040911 FLE		
5	Biennial report		
6	September 19, 2007 weekly inspection sheet		
7	March 19, 2009 weekly inspection sheet		
8	Flow through calculation for the 1-year hazardous waste storage tanks		
9	Passing performance test of boilers with regards to MACT 40 CFR 63		
	subpart EEE		
10	Universal waste and hazardous waste training slides		
11	Employee specific ID number		
12	Tank VT-130 daily inspection logs		
13	Tank VT-132 daily inspection logs		
14	Tank Vt-245 daily inspection logs		
15	Tank VT-602 daily inspection logs		
16	1-year tank daily inspection logs		
17	1996 summary of the calculations for compliance with RCRA subpart		
	CC for onsite containers and hazardous waste storage tanks		
18	90 day tank log sheets		
19	Hazardous waste site closure bond insurance guarantee		

# Attachment #1



## Pennsylvania Department of Environmental Protection

2 East Main Street Norristown, PA 19401 September 19, 2007

Southeast Regional Office

484-250-5960 Fax 484-250-5961

Mr. Paul Persing
Environmental Engineer
Sunoco, Inc.
4700 Margaret Street
Philadelphia, PA 19137-1193

Re: RCRA Permit Modification (BIF)
Sunoco Frankford Plant
City of Philadelphia
ID No. PAD 002 312 791

APS No. 316787, AUTH No. 373629

Dear Mr. Persing:

Enclosed is Solid Waste Permit No. PAD 002 312 791 for modification of the referenced RCRA Part B permit to incorporate the operation of two hazardous waste liquid fired boilers, issued in accordance with Article V of the Solid Waste Management Act, 35 P.S. Sections 6018.101, et seq.

Compliance with the terms and conditions set forth in the permit is mandatory. Please note that issuance of this permit does not eliminate the necessity to comply with all federal, state, or local requirements at the permitted facility. You have the right to file an appeal as to the terms and conditions of those portions of the permit modified by this action (25 Pa. Code 270a.41(4)).

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S., Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in Braille or on audiotape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

Mr. Paul Persing

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September 19, 2007

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483) FOR MORE INFORMATION.

If you have any questions about the enclosed permit or requirements of the Solid Waste Management Act, please contact me at the number listed above.

Sincerely.

James Wentzel, A Regional Manager

Waste Management Program

Enclosure:

Permit Modification

Comment and Response Document

cc:

City of Philadelphia Health Department (w/enclosures)

Air Management Services (w/enclosures)

Mr. Gotthold, USEPA Region 3 (w/enclosures)

Mr. Gross, USEPA Region 3 (w/enclosures)

Re, 30

# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT FOR HAZARDOUS WASTE STORAGE, TREATMENT AND DISPOSAL

Permittee: Sunoco, Inc. (R&M)	Permit Number: PAD002312791
Facility: Sunoco, Inc Frankfort Plant	

This permit is modified by the Commonwealth of Pennsylvania Department of Environmental Protection (Department) under authority of the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. Section 6018.101 et seq. (the Act), the Department's hazardous waste regulations and Federal hazardous waste regulations to Sunoco, Inc. (R&M) (hereafter called the Permittee), to operate a hazardous waste management facility located at Margaret and Bermuda Streets in the City of Philadelphia, at latitude 40° 00' 24" North and longitude 75° 04' 07" West. This permit is being modified to incorporate the operation of two hazardous waste liquid fired boilers (BIF) at its Frankford Plant in Philadelphia, Pennsylvania.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (Parts I - V, consisting of pages 1 through 29 and Attachments I through 15) and the applicable regulations contained in 25 Pa. Code Chapters 260a-270a and 40 C.F.R. 260-270 as specified in the permit.

This permit is based on the assumption that the information submitted in the "renewal" application attached to the Permittee's letter dated <u>December 30, 1999</u>, as modified by subsequent amendments dated June 21, 2000, and the "BIF modification application" attached to the permittee's letter dated <u>January 11, 2002</u>, as modified by subsequent amendments dated January 28, 2002, May 27, 2003, March 19, 2004. September 10, 2004, April 29, 2005, October 13, 2005, Feburary 17, 2006, March 13, 2006, May 23, 2006, June 12, 2006, August 10, 2006, <u>December 15, 2006, and July 16, 2007</u> (hereafter referred to as the application), is accurate and that the facility will be constructed and/or operated as specified in the application. Any inaccuracies found in this information may be grounds for the revocation or modification of this permit and potential enforcement action. The Permittee must inform the Department of any deviation from or changes in the information in the application, which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit is conditioned upon full compliance with all applicable provisions of the Act; the Department's regulations contained in 25 Pa. Code Chapter 260a – 270a; Federal regulations contained in 40 C.F.R. Chapters 260 – 270; the Clean Streams Law, 35 P.S. 691.1 et seq.; the Air Pollution Control Act, 35 P.S. 4001 et seq.; the Dam Safety and Encroachments Act, 32 P.S. 693.1 et seq.; the Surface Mining Conservation and Reclamation Act, 52 P.S. 1396.1 et seq.; the Coal Refuse Disposal Control Act, 52 P.S. 30.51 et seq.; all other Pennsylvania statutes related to the protection of the environment; and all Pennsylvania statutes related to the protection of public health, safety, and welfare.

This permit is effective as of <u>September 19. 2007</u>, and shall remain in effect until <u>December 27. 2010</u>, unless revoked and reissued, or terminated in accordance with 25 Pa. Code270a.41, 270a.42, 270a.43 and 40 C.F.R. 270.41, 270.42, and 270.43, or continued.

#### PART I - STANDARD CONDITIONS

#### A. EFFECT OF PERMIT

This permit authorizes only the management of hazardous waste expressly described in this permit and does not authorize any other management of hazardous waste. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under the Act or any other law governing protection of public health or the environment.

#### B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, terminated for cause as specified in 25 Pa. Code 270a.41, 270a.42, 270a.43 and 40 C.F.R. 270.41, 270.42, and 270.43 or suspended in accordance with the Act. The filing of a request for a permit modification, revocation and reissuance, or revocation or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay or supersede the applicability or enforceability of any permit condition.

#### C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held to be invalid, the application of such provision to other circumstances and the remaining provisions of this permit shall not be affected thereby.

#### D. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in Title 25 of the Pennsylvania Code and Title 40 of the Code of Federal Regulations (25 Pa. Code Chapters 260a - 270a and 40 C.F.R. 260 - 270), unless this permit specifically states otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. "The Department" is the Department of Environmental Protection of the Commonwealth of Pennsylvania.

#### E. REPORTS, NOTIFICATIONS AND SUBMISSIONS TO THE DEPARTMENT

All reports, notifications or other submissions which are required by this permit to be sent or given to the Department should be sent certified mail or given to:

The Regional Solid Waste Manager
Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

#### F. SIGNATORY REQUIREMENTS

All reports or other information requested by the Department shall be signed and certified as required by 40 C.F.R. 270.11.

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#### G. DOCUMENTS TO BE MAINTAINED AT THE FACILITY SITE

The Permittee shall maintain at the facility, until closure is completed and certified by an independent registered professional engineer, the following documents and amendments, revisions and modifications to these documents:

- Waste analysis plan required by 25 Pa. Code 264a.13 and this permit.
- 2. Personnel training documents and records required by 40 C.F.R. 264.16(d) and this permit.
- Contingency plan required by 40 C.F.R. 264.53(a) and this permit.
- 4. Closure plan required by 40 C.F.R. 264.112(a) and (b) and this permit.
- 5. Annually-adjusted cost estimate(s) for facility closure required by 40 C.F.R. 264.142 and this permit.
- 6. Operating record required by 40 C.F.R. 264.73 and Part II, Section H.1 of this permit.
- 7. Inspection schedules and logs required by 40 C.F.R. 264.15(b)(2) and this permit.
- 8. Documents required by Part I and Part II of this permit.

#### H. DUTIES AND REQUIREMENTS

- 1. <u>Duty to Comply</u>. The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and the regulations promulgated thereunder and is grounds for enforcement action; for permit revocation, termination and reissuance, or modification; or for denial of a permit renewal application.
- Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the
  expiration date of this permit, the Permittee must submit a complete application for a new permit at
  least 180 days before this permit expires.
- 3. <u>Permit Expiration</u>. This permit and all conditions therein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application and through no fault of the Permittee, the Department has not issued a new permit.
- 4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittee in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this pennit.
- 5. <u>Duty to Mitigate</u>. In the event of noncompliance with the Act, the regulations, or this permit, the Permittee shall take all necessary steps to prevent and abate any releases to the environment, and shall carry out such measures as are necessary to prevent significant adverse impacts on human health or the environment.
- 6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of storage, treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the Act, the regulations, and the conditions of this permit. Proper operation and maintenance shall include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall operate back-up or auxiliary facilities or similar systems if necessary to achieve compliance with the Act, the regulations and the conditions of the permit.

- 7. <u>Duty to Provide Information</u>. The Permittee shall furnish to the Department within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Department, upon request, copies of records required to be kept by the Permittee pursuant to the Act, the regulations, or any permit condition.
- Inspection and Entry. The Permittee shall allow the Department, its agents and authorized representatives, upon the presentation of credentials and other documents as may be required by law, or without advance notice or a search warrant to:
  - a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records concerning the regulated facility or activity are kept;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - Inspect at reasonable times any facilities, equipment (including monitoring and control
    equipment), practices, or operations regulated or required under the Act, the regulations, or this
    permit;
  - d. Sample or monitor any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by the Act or the regulations; and
  - Engage in any other activities necessary or appropriate to the documentation of events or conditions at any locations.

#### 9. Monitoring and Records.

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 C.F.R. Part 261 Criteria, Identification and Listing of Hazardous Waste or an equivalent method approved by the Department. Laboratory methods must be those specified in Appendix III of 40 C.F.R. Part 261; Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (U.S. EPA Document SW-846, most recent edition); Standard Methods of Waste Water Analysis (U.S. EPA; 15th ed.; 1980); or an equivalent method approved by the Department and as specified in the attached waste analysis plan.
- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by the Act, the regulations, or this permit, and all records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report or record, or application. These periods may be extended by request of the Department at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.
- c. The Permittee shall, at a minimum, keep monitoring records, which include the following information:
  - (1) The dates, exact place, and times of sampling or measurements;
  - (2) The individuals who performed the sampling or measurements;
  - The dates analyses were performed;

- (4) The individuals who performed the analyses;
- (5) The analytical techniques or methods used; and
- (6) The results of such analyses.
- 10. Reporting Planned Changes. The Permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. This notice must include a description of all incidents of noncompliance reasonably expected to result from the proposed changes. The Permittee shall not modify the facility without first obtaining a permit from the Department.
- 11. Anticipated Noncompliance. The Permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- Transfer of Permits. This permit shall not be transferred or assigned to any other person or municipality.
- 13. Twenty-Four Hour Reporting. The Permittee shall report to the Department any noncompliance with the Act, the regulations or any condition of this permit or any occurrence or event at the facility which may endanger health or the environment.
  - a. Information shall be provided orally within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include the following:
    - (1) Information concerning release or potential release of any hazardous waste from the facility that may endanger public drinking water supply sources.
    - (2) Any information of a release, potential release, or discharge of hazardous waste from the facility, or information of a potential or actual fire or explosion at the facility, which may threaten the environment or human health.
  - b. The description of the occurrence and its cause shall include:
    - Name, address, and telephone number of the owner or operator;
    - Name, address, and telephone number of the facility;
    - Date, time, and type of incident;
    - (4) Name and quantity of material(s) involved;
    - (5) The extent of injuries, if any;
    - (6) An assessment of actual or potential hazards to the environment and human health at or near the facility; and
    - (7) Estimated quantity and disposition of recovered material that resulted from the incident.
  - c. A written submission shall also be provided to the Department within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of non-compliance (including exact dates and times); if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permittee need not comply with the five (5) day written notice requirement if the Department extends it to fifteen (15) days.

- 14. Other Noncompliance. The Permittee shall report to the Department all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports are submitted. The reports shall contain the information listed in permit condition I.H.13.
- 15. Other Information. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Department, or whenever the Permittee becomes aware of circumstances which require a modification or clarification of any fact or representation made to the Department in connection with a permit application, it shall promptly submit such facts or information to the Department.

#### PART II - GENERAL FACILITY CONDITIONS

#### A. DESIGN AND OPERATION OF FACILITY

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater which could threaten human health or the environment.

#### B. GENERAL WASTE ANALYSIS

The Permittee shall follow the procedures described in the attached waste analysis plan, Attachment 1. The Permittee shall verify its waste analysis as part of its quality assurance program, in accordance with current EPA practices (Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, most recent edition) or equivalent methods approved by the Department in accordance with procedures in 40 C.F.R. 260.21; and at a minimum maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations.

#### C. SECURITY

The Permittee shall comply with the security provisions of 40 C.F.R. 264.14(b) and (c).

#### D. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection plan set out in the inspection schedule, Attachment 2. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 40 C.F.R. 264.15(c). Records of inspections shall be kept as required by 40 C.F.R. 264.15(d).

#### E. PERSONNEL TRAINING

The Permittee shall conduct personnel training as required by 40 C.F.R. 264.16. This training program shall follow the attached outline, Attachment 3. The Permittee shall maintain training documents and records as required by 40 C.F.R. 264.16 (d) and (e).

#### F. PREPAREDNESS AND PREVENTION

- 1. Required Equipment. At a minimum, the Permittee shall equip the facility with the equipment set forth in the PPC plan, Attachment 4, as required by 40 C.F.R. 264.32.
- 2. <u>Testing and Maintenance of Equipment</u>. The Permittee shall test and maintain the equipment specified in the previous permit condition and in Attachment 4 as necessary to assure its proper operation in time of emergency.
- 3. Access to Communications or Alarm System. The Permittee shall maintain access to the communications or alarm system as required by 40 C.F.R. 264.34.
- 4. Required Aisle Space. At a minimum, the Permittee shall maintain aisle space as required by 40 C.F.R. 264.35 and as shown on the plans and specifications, Attachment 5.
- 5. <u>Arrangements with Local Authorities</u>. The Permittee shall maintain arrangements with State and local authorities as required by 40 C.F.R. 264.37. If State or local officials refuse to enter into or renew existing preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

## G. PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN

- 1. <u>Implementation of PPC Plan</u>. The Permittee shall immediately carry out the provisions of the PPC plan, Attachment 4, and follow the emergency procedures described by 25 Pa. Code 264a.56 and 40 C.F.R. 264.56 (a) (i) whenever there is a fire, explosion, emission or discharge of hazardous waste or hazardous waste constituents which could threaten human health or the environment.
- 2. Copies of Plan. The Permittee shall comply with the requirements of 40 C.F.R. 264.53.
- 3. <u>Amendments to Plan</u>. The Permittee shall review and immediately amend, if necessary, the PPC plan, as required by 40 C.F.R. 264.54.
- 4. Emergency Coordinator. The Permittee shall comply with the requirements of 40 C.F.R. 264.55.
- 5. <u>Emergency Procedures</u>. The Permittee shall comply with the requirements of 25 Pa. Code 264a.56 and 40 C.F.R. 264.56(a-i).

#### H. RECORDKEEPING AND REPORTING

- 1. Operating Record. The Permittee shall maintain a written operating record at the facility in accordance with 40 C.F.R. 264.73.
- 2. <u>Biennial Report</u>. The Permittee shall comply with all applicable annual report requirements 25 Pa. Code 264a.75 and 40 C.F.R. 264.75.
- 3. Required Reports. The Permittee shall comply with all applicable reporting requirements as described in Part I and Part II of this permit.

#### I. CLOSURE

- 1. <u>Performance Standard</u>. The Permittee shall close the facility as required by 40 C.F.R. 264.111 and in accordance with the closure plan, Attachment 6.
- 2. <u>Amendment to Closure Plan</u>. The Permittee shall amend the closure plan in accordance with 40 C.F.R. 264.112(c) whenever necessary.
- 3. Notification of Closure. The Permittee shall notify the Department in writing at least 180 days prior to the date he expects the final volume of waste.
- 4. <u>Time Allowed for Closure</u>. After receiving the final volume of hazardous waste, the Permittee shall remove from the site all hazardous waste and shall complete closure activities in accordance with the schedules specified in the closure plan, Attachment 6.
- 5. <u>Disposal or Decontamination of Equipment</u>. The Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by 40 C.F.R. 264.114 and the closure plan, Attachment 6.
- 6. <u>Certification of Closure</u>. The Permittee shall certify that the facility has been closed in accordance with the specifications in the closure plan as required by 25 Pa. Code 264a.115 and 40 C.F.R. 264.115.

#### J. COST ESTIMATE FOR FACILITY CLOSURE

1. <u>Annual Adjustment</u>. The Permittee shall adjust the closure cost estimate for inflation within 30 days after each anniversary of the date on which the first cost estimate was made as required by 40 C.F.R. 264.142(b).

- 2. <u>Adjustment for Changed Conditions</u>. The Permittee shall revise the cost estimate whenever there is a change in the facility's closure plan or in the measures necessary to prevent adverse effects upon the environment as required by 40 C.F.R. 264.142(c).
- 3. Availability. The Permittee must keep at the facility the latest cost estimate as required by 40 C.F.R. 264.142(d).
- 4. <u>Incapacity of Permittee or Financial Institutions</u>. The Permittee shall comply with 25 Pa. Code 264a.148 and 40 C.F.R. 264.148 whenever necessary.

#### K. BONDING REQUIREMENT

The Permittee shall maintain the bond submitted to and approved by the Department as required by 25 Pa. Code 264a.162. The Permittee shall comply with all applicable bond replacement requirements of 25 Pa. Code 264a.158.

#### L. LIABILITY INSURANCE

The Permittee shall comply with the liability insurance requirements of 25 Pa. Code 264a.147 and the documentation requirements of 40 C.F.R. 264.147(a) and (b). These include the requirements to have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs. The Permittee shall submit new certificates of liability insurance 60 days prior to the expiration of the current certificate.

M. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE The Permittee shall comply with the requirements of 40 C.F.R. 264.17.

#### N. AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

The permittee shall comply with the applicable requirements of 40 C.F.R. 264, Subpart BB, including the reporting requirements found in 40 C.F.R. 264.1065. Where a term or condition of this permit differs from the requirements of Subpart BB, the term or condition shall govern.

#### PART III - STORAGE IN CONTAINERS

## WASTE IDENTIFICATION

The Permittee may store the following wastes in containers at the facility, subject to the terms of this

Hazardous Waste Code	Description
D001	Ignitable Waste
D002	Corrosive Waste
D003	Reactive Waste
D007	Chromium
D008	Lead
D009	Mercury
D018	Benzene
F003	Spend Halogenated Solvents
K022	Distillation Bottom Tars from the production of phenol and acetone from cumene
U001	Acetaldehyde
U002	Acetone
U004	Acetophenone
U019	Benzene
U022	Benzo[a]pyrene
U055	Benzene, (1-methylethyl)
U096	Alpha, alpha- Dimethylbenzylhydroperoxide
U154	Methanol
U165	Naphthalene
U188	Phenol
U220	Toluene

#### B. **DURATION OF STORAGE**

The Permittee shall not store containers of hazardous waste at this facility in excess of one year.

SEP. 25. 2007 11:50AM SUNOCO INC. NO. 2277 P. 13

#### C. CONDITION OF CONTAINERS

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this permit.

#### PLACEMENT REQUIREMENTS D.

The Permittee shall store all hazardous waste containers in accordance with the following volume, content and location requirements:

1.	Area No.	l	Permitted Waste Codes
	Location:	Stiles Street drum storage	D001, D002, D003, D007, D008
		area, divided into two cells	D009, D018, F003, K022, U001,
			U002, U004, U019, U022, U055,
			U096, U154, U165, U188, U220

- Cell No. A a.
  - (1) Description Phenolics, organic and various type wastes
  - (2) Maximum Volume of Waste Allowed 18,480 gallons
  - (3) Maximum Number of Containers Allowed 336 (55-gallon drums)
- Cell No. B b.
  - (1) Description Reactive wastes storage area (D003 and U096 wastes)
  - (2) Maximum Volume of Waste Allowed 9,240 gallons
  - (3) Maximum Number of Containers Allowed 168 (55-gallon drums)

#### Ε. COMPATIBILITY OF WASTES WITH CONTAINERS

The Permittee shall assure that the ability of the container to contain the waste is not impaired as required by 40 C.F.R. 264.172.

#### MANAGEMENT OF CONTAINERS F.

- 1. The Permittee shall manage containers as required by 40 C.F.R. 264.173 and 25 Pa. Code 264a.173.
- 2. The Permittee shall routinely add soda ash to the containers holding used cumene hydroperoxide (CHP) filter cartridges for stabilization and to render the containers safe for transport.

#### G. CONTAINMENT

The Permittee shall construct and/or maintain the containment system as required by 40 C.F.R. 264.175 and the attached plans and specifications, Attachment 7.

## H. CONTAINER STACKING HEIGHT, WIDTH, AND DEPTH

The Permittee shall store containers of hazardous waste as required by 40 C.F.R. 264.173 and 25 Pa. Code 264a.173 and the attached plans and specifications, Attachment 7.

## I. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTES

The Permittee shall not locate containers holding ignitable or reactive wastes within 15 meters (50 feet) of the facility's property line, nor within 40 feet of a building.

## J. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES

- 1. <u>Placement of Incompatible Wastes</u>. Prior to placing incompatible wastes and/or materials in the same container, the Permittee shall follow the procedures specified in Attachment 9
- 2. <u>Incompatible Wastes in Unwashed Containers</u>. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
- 3. <u>Storage of Incompatible Wastes</u>. The Permittee shall store containers of incompatible wastes as indicated in the attached plans, Attachment 7, as required by 40 C.F.R. 264.177(c).
- 4. <u>Documentation</u>. The Permittee must document compliance with sections (1) and (2) of this condition as required by 40 C.F.R. 264.17(c) and place this documentation in the operating record (permit condition II.H.1.).

#### PART IV - STORAGE IN TANKS

#### WASTE IDENTIFICATION A.

The Permittee may store/treat the following hazardous waste in tanks, subject to the terms of this permit:

1.	Tank No(s).	Hazardous Waste No.
_	VT-621	D001 K022
2.	Tank No(s).	Hazardous Waste No.
	VT-622	D001 K022

#### В. **DURATION OF STORAGE**

The Pennittee shall not store hazardous wastes in tanks at this facility in excess of one year.

#### **DESIGN AND CONSTRUCTION OF TANKS** C.

The Permittee shall construct, modify, and maintain all tanks in accordance with the plans and specifications in Attachment 8. Two aboveground tanks, designated VT-621-622, privide over 90-day storage for hazardous wastes. Each tank is 30 feet high, 20 feet inside diameter, and 70,500-gallons of nominal storage capacity. The Permittee shall maintain the minimum shell thickness specified below at all times to ensure sufficient structural strength.

	Tank No(s).	Minimum Shell Thickness (Inches)
1.	VT-621	0.125
2.	VT-622	0.125

#### PROTECTION FROM OVERFILLING D.

The Permittee shall prevent overfilling of tanks by the methods specified in Attachment 7 and summarized below.

	Tank No(s).	Type of Control
1.	VT-621	Differential pressure level transmitters and high level alarms
2.	VT-622	Differential pressure level transmitters and high level alarms

#### Е. SECONDARY CONTAINMENT

The Permittee shall construct and/or maintain the containment structure as required by 40 C.F.R. 264.194(b) and the attached plans and specifications, Attachment 8.

#### F. EMERGENCY REPAIRS; CONTINGENCY PLAN

- 1. The Permittee shall inspect the tanks in accordance with the Tank Evaluation and Repair (TER) Plan whenever there is any indication of a possible failure as required by 40 C.F.R. 264.196.
- 2. Whenever there is evidence of tank failure, the Permittee shall remove the tank from service as required by 40 C.F.R. 264.196 and implement the procedures required by 40 C.F.R. 264.196(a) and specified in the PPC Plan, Attachment 4.
- 3. Prior to restoring it to service, the Pennittee shall repair the tank and obtain a certification from a registered professional engineer that it meets the design specifications approved in this permit, as required 40 C.F.R. 264.196(f).
- 4. If a tank has been removed from service due to failure and is not being repaired, the permittee shall close it as required by 40 C.F.R. 264.196.

#### G. Access Roads

The Permittee shall construct and/or maintain access roads as required by the attached plans and specifications in Attachment 8.

#### H. BUFFER ZONE

The Permittee shall establish and maintain a buffer zone of 50 feet between the property line and the permitted facility within which no solid waste treatment, storage, or disposal activities shall occur.

#### I. EQUIPMENT

- 1. Equipment Maintenance. The Permittee shall maintain tank operating equipment in operable condition and adequate in size and performance capability to assure that the facility operation will not be interrupted during normal working periods and that the facility operation is in accordance with this permit.
- Standby Equipment. The Permittee shall maintain standby equipment on-site or readily available for
  use in the event of a major equipment breakdown.

#### J. PROTECTION FROM CORROSION

The Permittee shall protect tanks from accelerated corrosion, erosion, and abrasion as specified in Attachment 8 and summarized below.

	Tank No(s).	Type of Protection
1.	VT-621	SA-283-C carbon steel
2.	VT-622	A-285-46 grade C, carbon steel

#### K. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTES

- 1. <u>Special Requirements</u>. The Permittee shall not place ignitable or reactive waste in a tank unless the procedures described in Attachment 9 are followed.
- Documentation. The Permittee shall document compliance with the above permit condition as required by 40 C.F.R. 264.17(c) and place this documentation in the operating record (permit condition II.H.1).

 NFPA Requirements. The Permittee shall comply with all applicable requirements for covered tanks listed in the National Fire Protection Association's "Flammable and Combustible Liquids Code, 1981", or latest revised edition.

## L. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

- 1. <u>Incompatible Waste Precautions</u>. The Permittee shall not place incompatible wastes in the same tank or place hazardous waste in an unwashed tank that previously held an incompatible waste or material unless the procedures specified in Attachment 9 are followed.
- Documentation. The Permittee shall document compliance with the above permit condition as required by 40 C.F.R. 264.17(c) and place this documentation in the operating record (permit condition II.H.1).

#### M. SURFACE WATER MANAGEMENT

- 1. <u>Design Standards</u>. The Permittee shall manage surface water on the site as required by 25 Pa. Code 264.192(1) and the plans and specifications in Attachment 10.
- 2. <u>Run-Off.</u> The Permittee shall manage surface water run-off as required by 40 C.F.R. 264.18(b) and the plans and specifications in Attachment 10.
- 3. <u>Run-On</u>. The Permittee shall control run-on as required by 264.18(b) and the plans and specifications in Attachment 10.

#### PART V - HAZARDOUS WASTE BURNED IN BOILERS

#### A. GENERAL

- 1. This Part governs the burning of hazardous waste in two industrial boilers, identified as Boiler No. 1 (BL-701) and Boiler No. 2 (BL-702), and all directly related equipment including, but not necessarily limited to, feed, monitoring and control systems (collectively referred to herein this Part as "the facility" [emphasis added]). Each boiler unit is a Babcock and Wilcox steam generator nominally rated at 156,000 pounds of steam per hour at 260 psig and 527 °F. There is no add-on air pollution control equipment on either boiler.
- 2. The following abbreviations and acronyms are used in this Part:

acfin	actual cubic feet per minute
AWFCO	automatic waste feed cutoff
T	TS 1.1 1 12 1 1 1.

Btu British thermal unit

C.F.R. Code of Federal Regulations
Cl<sub>2</sub> molecular chlorine (gas)
CO carbon monoxide

° F degrees Fahrenheit

DRE destruction and removal efficiency

EPA United States Environmental Protection Agency

g/hr grams per hour gal/hr gallons per hour gpm gallons per minute

gr/dscf grains per dry standard cubic foot

HCl hydrogen chloride HRA hourly rolling average HW hazardous waste

in. w.c. inches of water column in.Hg inches of mercury

kscfm thousand standard cubic feet per minute

kpph thousand pounds per hour

Ib/hr pounds per hour

MACT maximum achievable control technology mg/dscm milligrams per dry standard cubic meter

MMBtu million British thermal units

ng/dscm nanograms (10<sup>-9</sup> grams) per dry standard cubic meter

O<sub>2</sub> molecular oxygen

PCB polychlorinated biphenyls

PCDD polychlorinated dibenzo-p-dioxins (tetra- through octa- congeners)
PCDF polychlorinated dibenzofurans (tetra- through octa- congeners)

POHC principal organic hazardous constituent

ppm parts per million

ppmv parts per million by volume psig pounds per square inch, gage

RCRA	Resource Conservation and Recovery Act
RPM	revolutions per minute
SOP	standard operating procedure
SSU	Saybolt second units
TEF	toxicity equivalency factor
TEQ	toxicity equivalence quotient

#### B. MAINTENANCE

- The Permittee shall maintain the facility in accordance with the engineering design plans and specifications contained in the BIF modification application, as amended by the approved Trial Burn Plan, dated April 29, 2005.
- 2. The Permittee shall maintain and follow a written preventive maintenance schedule that is consistent with the conditions of this permit. The schedule, and documentation of compliance with it, shall be available at the facility at all times for inspection by the Department, EPA, or their duly authorized representatives.

#### C. PERFORMANCE STANDARD

1. Each boiler shall achieve a destruction and removal efficiency (DRE) of 99.99 percent for each of the following principal organic hazardous constituents (POHCs):

## Chlorobenzene Phenol

The DRE shall be determined by the formula specified in 40 C.F.R. 266.104(a).

- 2. The emission concentration of carbon monoxide, corrected to 7 percent O<sub>2</sub>, shall not exceed 100 ppmv (dry basis) on an hourly rolling average.
- 3. The emission concentration of total hydrocarbons, monitored during all emission tests required by Condition V.G.1, shall not exceed 20 ppmv (dry basis), corrected to 7 percent O<sub>2</sub>, on an hourly rolling average.
- 4. The particulate matter emission rate from each boiler shall not exceed 0.080 gr/dscf of exhaust gas, corrected to 7 percent O<sub>2</sub> in accordance with the formula specified in 40 C.F.R. 266.105(a).
- 5. The combined hydrogen chloride (HCl) emission rate from both boilers shall not exceed 194 lb/hr.
- The combined molecular chlorine (Cl<sub>2</sub>) emission rate from both boilers shall not exceed 4.23 lb/hr.

7. The total emission rate of each metal from both boilers shall not exceed the following limits in g/hr:

Maximum Metal Emission RatesTotal from Both Boilers (g/hr)		
Antimony	119	
Arsenic	30.4*	
Barium	894	
Beryllium	60.2*	
Cadmium	80.3*	
Chromium (Cr <sup>+6</sup> )	11.9*	
Lead	1282	
Mercury	0.904	
Nickel	717	
Selenium	759	
Silver	223	
Thallium	40.3	

<sup>\*</sup> The actual emission rates for arsenic, beryllium, cadmium and hexavalent chromium shall be limited such that the sum of the ratios of the actual emission rate to the maximum emission rate (specified in the above table) shall not exceed 1.0.

#### D. FEED STREAM LIMITATIONS

- The Permittee may burn only phenol residues (EPA Hazardous Waste Code K022) generated by
  onsite production processes and cumene-containing free product (D001) generated by the
  permittee's Frankford Plant groundwater remediation. No offsite-generated wastes may be burned at
  the facility.
- 2. The following chemical and physical Limits apply:
  - a. All hazardous waste feeds shall be pumpable liquids at standard temperature and pressure. Intentional blending of solid hazardous wastes with liquids is prohibited.
  - b. The viscosity of hazardous waste fed to the boilers shall not exceed 230 SSU at 100 °F.
  - c. The ash content of any hazardous waste feed shall not exceed 0.23%, as determined in accordance with the Waste Analysis Plan (Attachment 1).

- Burning of any waste not identified in Condition V.D.1 is prohibited. This includes, but is not limited to dioxin-containing waste; polychlorinated biphenyl (PCB) waste; radioactive source, special nuclear or byproduct material (as defined by the United States Nuclear Regulatory Commission); containerized gas; and municipal and residual wastes (as defined in 25 Pa. Codes 271.1 and 287.1)
- 4. Only natural gas may be co-fired in a boiler that is burning hazardous waste. The Permittee may not co-fire fuel oil simultaneously with hazardous waste in the same boiler.

#### E. OPERATING CONDITIONS

These operating conditions apply at all times when hazardous waste is in the boiler, except when operating under an emission test protocol approved by the Department (see Condition V.G.2). Compliance with operating parameter limits shall be determined by the monitoring instruments and methods specified in Conditions V.G and V.H of this permit.

- The Permittee shall, at all times, operate the facility to minimize the possibility of a fire, explosion, or any unplanned release of hazardous waste constituents to air, soil, or surface water.
- The HRA combustion temperature shall be greater than 1390 °F.
- 3. The HRA feed rate of hazardous waste shall be less than or equal to 1500 gal/hr for each boiler. The combined rate for both boilers shall be less than or equal to 2000 gal/hr, HRA.
- 4. The HRA metal and chloride feed rates from all feed streams shall not exceed the following limits, in g/hr:

Maximum HRA Constituent Feed Rates -Total Feed to Both Boilers- (g/hr)	
Antimony	119
Arsenic	30.4*
Barium	894
Beryllium	60.2*
Cadmium	80.3*
Chromium (Cr <sub>total</sub> )	32.7*
Lead	1282
Mercury	0.904
Nickel	717
Selenium	759

\* See also Condition V.E.5.

- The actual feed rates for arsenic, beryllium, cadmium and chromium, shall be limited such that the sum of the ratios of the actual feed rate to the maximum feed rate (specified in Condition V.E.4) shall not exceed 1.0.
- 6. The minimum steam production rate while burning hazardous waste shall be 37,000 lb/hr, HRA.
- 7. The HRA combustion air (i.e. forced draft) fan speed shall be less than or equal to 2690 RPM. Air shall be fed to the boiler only through burners that are actively feeding waste or fossil fuel.
- The HRA concentration of carbon monoxide in the stack gas shall be less than or equal to 100 ppmv (dry basis), corrected to 7 percent O<sub>2</sub>).
- 9. The atomizing steam pressure shall be at least 40 psig pressure greater than the hazardous waste feed pressure at all times.
- 10. The Permittee shall control fugitive emissions from the combustion zone by maintaining the instantaneous combustion chamber pressure, measured at the burner wall, below atmospheric pressure (i.e., maintain a negative gage pressure) at all times, except as provided in Condition V.F of this permit.

#### F. FUGITIVE EMISSIONS DURING SOOTBLOWING

- During sootblowing, the combustion chamber pressure may be greater than atmospheric pressure but less than 0.15 in. w.c., provided that the Permittee complies with Conditions V.F.2, V.F.3 and V.F.4 of this permit.
- 2. Positive pressures shall not occur during more than 30 minutes in any calendar day.
- 3. The Permittee shall comply with the enhanced fugitive emission inspection and maintenance procedures set forth in Attachment 11.
- 4. Upon discovery of any crack or opening that could result in fugitive emissions under positive pressure conditions, the Permittee shall immediately take steps to terminate hazardous waste feed to the affected boiler. Hazardous waste feed shall not resume until the crack or opening has been fully repaired.

#### G. EMISSION TESTS

- Not later than 5 years after permit issuance, the Permittee shall conduct emission tests on Boiler 2 to demonstrate that the unit meets the destruction and removal efficiency and particulate matter standards of Conditions V.C.1 and V.C.4, respectively, of this permit. This test date may be modified, solely at the Department's discretion, to coincide with testing that may be required to demonstrate compliance with standards promulgated under 40 C.F.R. Part 63 (MACT emission standards).
- 2. All emission tests shall be conducted pursuant to a test protocol approved in writing by the Department. All test protocols shall be submitted to the Department for approval at least 6 months prior to the planned test date.
- 3. A complete emission test report, including all relevant determinations set forth in 40 C.F.R. 270.66(f), shall be submitted to the Department no later than 90 days after commencing an emission test. The report shall be signed by a responsible corporate official, as set forth in 40 C.F.R. 270.11, who shall certify that, to the best of his or her knowledge after reasonable inquiry, the test has been carried out in accordance with the approved test protocol except for changes explicitly identified in the test report. The report shall include all data collected during the emission test, including all data that has been rejected for any reason.
- 4. The Department may consider all emission test results to be new information that could warrant modification, revocation or reissuance of this permit.
- 5. When preparing for and conducting approved emission tests (including comprehensive performance tests pursuant to 40 C.F.R. 63.1207), the Permittee shall continue to comply with all terms and conditions of this permit, except as explicitly provided in the test protocol approved by the Department pursuant to Condition V.G.2 of this permit.
- 6. If, at any time following completion of an emission test but prior to submission of the test report, the Permittee determines that the facility has failed to achieve any performance standards specified in Condition V.C of this permit, the Permittee shall so notify the Department within 24 hours after determining that the standard was not achieved. The Department may, solely at its discretion, specify more restrictive operating conditions or direct the Permittee to cease burning hazardous waste pending approval of a revised trial burn plan. Fulfillment of this notification requirement does not alter the Permittee's responsibility to comply with the terms of this permit at all times while burning hazardous waste.

#### H. FEED STREAM ANALYSIS

- 1. The Permittee shall analyze hazardous waste feed streams in accordance with the Waste Analysis Plan, Attachment 1.
- The Permittee shall demonstrate continuous compliance with the constituent feed rate limits of Conditions V.E.4 and V.E.5 either directly, in accordance with Condition V.H.2.a, or indirectly, in accordance with Condition V.H.2.b. The operating record must clearly indicate which method was in effect at all times.
  - a. Compliance With Constituent Mass Feed Rate Limits
    - When demonstrating compliance with the constituent mass feed rate limits, the Permittee shall continuously calculate and record the HRA mass feed rate of each constituent listed in Condition V.E.4 of this permit. Each constituent feed rate may be directly recorded on

a minute-by-minute basis. Alternatively, each constituent feed rate shall be considered to be "recorded" so long as the constituent concentration and feed stream flow rate (and any other variables, such as density, needed to calculate the constituent mass feed rate) are individually recorded, and the Permittee's data management system can produce constituent mass feed rate reports immediately upon request of an authorized Department or EPA representative.

- ii. Constituent mass feed rates shall be calculated at least every minute by multiplying the constituent concentration (determined in accordance with Attachment 1) and the waste density (determined in accordance with Attachment 1) by the continuously monitored hazardous waste feed rate.
- iii. Constituent feed rates shall be recorded in g/hr.

#### b. Compliance With Maximum Waste Feed Concentration Limit

- i. When complying with this condition, the Permittee shall calculate and record the maximum concentration of each constituent that would equal the mass feed rate limits of Conditions V.E.4 and V.E.5 at a total hazardous waste feed rate of 2000 gal/hr using the waste density determined in accordance with Attachment 1.
- ii. The information in Condition V.H.2.b.i shall be updated each time that a new waste feed analysis results in a change in any constituent concentration or the waste density determined in accordance with Attachment 1.
- iii. The Permittee shall be deemed to be in compliance with the waste feed limits of Condition V.E.4 for antimony, barium, lead, mercury, selenium, silver, thallium, zinc, and total chloride as long as the actual constituent concentrations, determined in accordance with Attachment 1, are less than or equal to those calculated in Condition V.H.2.b.
- iv. The Permittee shall be deemed to be in compliance with the waste feed limits of Conditions V.E.4 and V.E.5 for arsenic, beryllium, cadmium, and chromium if the sum of the ratios of the actual waste feed concentration divided by the maximum waste feed concentration (calculated according to Condition V.H.2.b.i) for all four constituents is less than or equal to 1.0.

#### I. MONITORING

#### 1. General

- a. Except as provided in Condition V.I.4 of this Permit, hazardous waste shall not be burned in a boiler unless all monitors specified in Attachment 15 of this permit are operating, properly calibrated, and recording data.
  - i. Malfunction of any monitor associated with an AWFCO parameter shall result in an immediate and automatic cutoff of the hazardous waste feed.
  - ii. Malfunction of any monitor that is not associated with an AWFCO parameter shall require immediate action by the boiler operator to stop the hazardous waste feed as soon as possible consistent with safe operation of the boiler.
- b. Each monitor shall be fully operational for at least one averaging period prior to starting or restarting the hazardous waste feed.

- c. Except for the combustion chamber pressure monitor (see Condition V.I.1.e), a continuous monitor is one which continuously samples the regulated parameter without interruption, evaluates the detector response at least once every 15 seconds, and computes and records the average value at least every 60 seconds.
- d. For the combustion chamber pressure monitor, a continuous monitor is one which continuously senses the pressure without interruption, evaluates the detector response at least once every second, and records a data point at least every minute. The recorded value may be either the average of all readings over the previous 60 seconds, or the instantaneous value observed at 60 second intervals.

#### 2. Calibration

- a. The Permittee shall calibrate all instruments identified in Attachment 15 of this permit at the frequency specified therein and in accordance with written calibration procedures documented in Attachment 12.
- b. The carbon monoxide and oxygen monitors shall comply with the performance specifications of 40 C.F.R. Part 266, Appendix IX, Section 2.1, including a daily system audit (on days when hazardous waste is burned), a quarterly calibration error test and an annual performance specification test.

#### 3. Records

- a. The Permittee shall record monitoring data as specified in Attachment 15 of this permit.
- b. The Permittee shall document in the operating record the date of each calibration, the person performing the calibration, and the results of the calibration.
- c. The Permittee shall document in the operating record all unscheduled instrument maintenance.

  Documentation shall include the date, the person responsible, and the nature of the repair.
- d. All monitoring, calibration, and maintenance records required by Condition V.I of this permit shall be retained and available for inspection for a period of three (3) years following the date on which the record is generated. Records may be stored either electronically or as hard copy, providing that a hard copy shall be made available to the Department upon request in the case where a record is stored electronically.
- 4. The Permittee may continue to burn hazardous waste while conducting daily calibration of the CO and O<sub>2</sub> continuous emission monitors, provided that the total calibration period does not exceed 20 minutes per day per boiler, or some other timeframe as may be incorporated into this permit in writing by the Department based upon a suitable demonstration by the Permittee.
- 5. The Permittee may continue to burn hazardous waste while cleaning the lens of the infrared combustion temperature monitor, provided that the lens cleaning process is not done concurrent with CO calibration and provided that it does not exceed a timeframe approved, in writing, by the Department. It is the option of the Permittee to seek and obtain such approval from the Department. Until or unless such approval is received, the Permittee shall conduct lens cleaning during times when hazardous waste is not being burned.

## 6. Computation of Rolling Averages

- a. A rolling average is the arithmetic mean of the most recent 1-minute average values recorded by a continuous emission monitor over the specified averaging period. A HRA is the arithmetic mean of the 60 most recent 1-minute average values.
- b. Periods during which no 1-minute average data is recorded (e.g. the monitor malfunctions or is turned off when the unit is shut down) shall be disregarded when calculating HRAs.

#### J. INSPECTION

- 1. The Permittee shall inspect the boilers and associated waste feed and monitoring systems in accordance with Attachment 2 of this permit.
- 2. The facility shall be visually inspected at least daily when containing hazardous waste. The equipment shall be inspected for leaks, spills, fugitive emissions, and signs of tampering.
- 3. Documentation of each inspection shall be included in the operating record. At a minimum, the record shall include:
  - a. date of the inspection,
  - b. identification of each device or operating system inspected, including part number or other descriptive identifier,
  - c. name of person(s) conducting the inspection,
  - d. description of any leaks, spills, or fugitive emissions observed, and
  - e. description of corrective measures taken as a result of the inspection.
- 4. All inspection records required by Condition V.J of this permit shall be retained and available for review for a period of three (3) years following the date on which the inspection record is completed. Records may be stored either electronically or in hard copy form, providing that a hard copy shall be made available to the Department upon request in the case where a record is stored electronically.

#### K. AUTOMATIC WASTE FEED CUTOFF (AWFCO) AND ALARMS

1. <u>General</u>. For those parameters designated as AWFCO in Attachment 15 of this permit, the Permittee shall automatically cut off the hazardous waste feed when the monitored operating conditions exceed the set points specified therein or when the monitor does not produce valid data.

#### Testing the AWFCO System

- The AWFCO system and associated alarms shall be tested in accordance with the SOP in Appendix 13.
- b. Within 30 days after the effective date of this permit, the SOP in Appendix 13 shall be updated to include procedures for weekly testing of the minimum combustion chamber temperature and maximum combustion air fan speed automatic waste feed cutoffs.
- c. Each AWFCO valve shall be tested in accordance with Attachment 13 at least monthly to verify that the valve completely cuts off hazardous waste flow upon receipt of an appropriate signal from the AWFCO system.

d. AWFCO testing may be suspended when hazardous waste is not being burned in the boiler, provided that such testing is conducted prior to resuming hazardous waste feed.

#### Failure of the AWFCO System

- a. If the AWFCO system fails to immediately and automatically cut off the hazardous waste feed when an AWFCO set point is exceeded or when any system component malfunctions, the Permittee shall immediately and manually cut off and lock out the hazardous waste feed.
- b. The Permittee shall submit an incident report to the Department within seven days of the occurrence of an incident that triggers action pursuant to Condition V.K.3.a. The incident report shall document the cause of the AWFCO system failure and the corrective action taken to prevent recurrence, or shall document the status of the permittee's investigation of the incident should the cause not be determined and/or the corrective action not be implemented within the seven day timeframe. In the latter instance, the incident report shall also provide a schedule for follow-up reports until the cause is determined and/or the corrective action implemented.

#### 4. Records

- a. The Permittee shall document each AWFCO in the operating record. At a minimum, documentation shall include the date and time, the known or suspected cause, and the corrective action(s) taken.
- b. The Permittee shall document in the operating record each AWFCO test required by Condition K.2. At a minimum, documentation shall include the date and time of the test, the name of the person responsible for conducting the test, and a thorough description of any failure of the system to perform appropriately.
- c. AWFCO records shall be maintained on-site for at least three (3) years. They shall be readily available at all times for inspection by any authorized representative of the Department or EPA.

#### L. DIRECT TRANSFER OF HAZARDOUS WASTE

Transfer of hazardous waste directly to the boilers from a tank truck or any vessel, other than one of the hazardous waste storage tanks approved in Part IV of this permit, is prohibited.

#### M. RESIDUES

All residues removed from the boilers shall be handled as hazardous waste in accordance with the applicable requirements of 25 Pa. Code 260a-270a and 40 CRF 260-270.

#### N. FACILITY MODIFICATIONS

Modification to the facility and/or modification to the provisions of this permit are subject to the requirements of 25 Pa. Code 270a.41-43 and 40 C.F.R. 270.41-43, relating to changes to permits, except when changes to emission standards, operating limits and/or monitoring requirements are implemented pursuant to a trial burn plan approved by the Department (see Condition G-5).

#### O. TRANSITION TO MACT

The boilers subject to Part V of this permit are subject to the MACT standards for liquid fuel boilers. The MACT rule was promulgated on October 12, 2005 with a compliance date of October 12, 2008. After the Permittee submits its MACT Notification of Compliance (NOC) and receives a written finding of compliance pursuant to 40 C.F.R. 63.6(f)(3), the provisions of Part Vof this permit, except Sections J, L, and M are void.

Although the emission standards and operating conditions of this permit will no longer apply at that time, the boilers will remain hazardous waste treatment units and the facility will remain subject to all other applicable RCRA requirements. In addition, the Department retains its authority under 40 C.F.R. 270.32(b)(2) to require permit terms and conditions beyond those required under the MACT rule, as necessary to protect human health and the environment.

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Date Signed

James Wentzel, P.E.

Regional Manager

Waste Management Program

FOR THE DEPARTMENT

#### LIST OF ATTACHMENTS

- 1. Waste Analysis Plan (Vol. 1, Section C-2, of the renewal application and the <u>Waste Analysis Plan for the BIF Units</u>, revised December 15, 2006, of the BIF modification application)
- 2. Inspection Requirements (Vol. 2, Section F of the renewal application and boiler inspection plan contained in May 23, 2006, submittal)
- 3. Personnel Training (Vol. 2 Section H of the renewal application)
- 4. PPC Plan (Vol. 2, Section G of the renewal application)
- 5. Aisle Space Requirement (Vol. 2, Section F-3b of the renewal application)
- 6. Closure Plan ((Vol. 2, Section I of the renewal application)
- Container Management Plan (Vol. 1, Section D of the renewal application)
- 8. Tank Management Plan (Vol. 1, Section D-2 of the renewal application)
- 9. Special Requirements for Incompatible Wastes (Vol. 2 Section F-5 of the renewal application)
- Containment Liquid Assessment and Liquid Removal (Vol. 1, Section D of the renewal application)
- 11. Enhanced Fugitive Emission Control Plan (May 23, 2006) submittal of the BIF modification application.
- Monitoring Equipment Calibration Procedures (Trial Burn Plan, dated April 29, 2006, Appendices F and N, or as updated by letter dated July 16, 2007)
- 13. AWFCO test procedures (Trial Burn Plan, dated April 29, 2006, Appendix E)
- 14. <u>Table V.C</u> (page 28of this permit)
- 15. Table V.I (page 29 of this permit)

Table V.C PCDD/PCDF TOXICITY EQUIVALENCY FACTOR VALUES

Congener	TEF
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1.0
2,3,7,8-Tetrachlorodibenzofuran	0.1
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	1.0
1,2,3,7,8-Pentachlorodibenzofuran	0.05
2,3,4,7,8-Pentachlorodibenzofuran	0.5
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	0.1
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	0.1
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	0.1
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	0.01
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01
1,2,3,4,6,7,8,9-Octachlorodibenzo(p)dioxin	0.0001
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	0.0001

Source: World Health Organization (1998)

Table V.I **Continuous Monitoring Requirements** 

Parameter	Boiler 1 Instrument I.D.	Boiler 2 Instrument I.D.	Units	Averaging Period	Recording Frequency	Calibration Frequency	AWFCO/Alarm Setpoint	
minimum combustion zone temperature	TH-5751		°F	HRA	continuous	annually	AWFCO	1390
maximum hazardous waste feed rate	FH-5726		gal/hr	HRA	continuous	annually	AWFCO	1500-each boiler 2000-total
minimum atomizing steam differential pressure (vs. waste feed pressure)	PD-5739		psig	One-minute	continuous	annually	alarm	40
maximum combustion chamber pressure	PI-5756A		in. w.c.	none	each minute see note (1)	annually	alarm	0
maximum combustion air fan speed (indicator of exhaust gas flow rate)	SI-5708		RPM	HRA	continuous	annually	AWFCO	2690
minimum steam production rate	FI-5722		kpph	HRA	continuous	annually	alarm	37
maximum carbon monoxide in the exhaust gas	AH-5712		ppmv @ 7% O <sub>2</sub>	HRA	continuous	daily	AWFCO	100
oxygen in the exhaust gas	AI-5711		%	NA	continuous see note (2)	daily		

Notes (1) Permittee shall record either the 1-minute average value or the instantaneous reading at 1-minute intervals.

(2) Oxygen monitoring is required only to allow for continuous correction of carbon monoxide data to 7 % O2.

## 6. Computation of Rolling Averages

- a. A rolling average is the arithmetic mean of the most recent 1-minute average values recorded by a continuous emission monitor over the specified averaging period. A HRA is the arithmetic mean of the 60 most recent 1-minute average values.
- b. Periods during which no 1-minute average data is recorded (e.g. the monitor malfunctions or is turned off when the unit is shut down) shall be disregarded when calculating HRAs.

#### J. INSPECTION

- The Permittee shall inspect the boilers and associated waste feed and monitoring systems in accordance with Attachment 2 of this permit.
- 2. The facility shall be visually inspected at least daily when containing hazardous waste. The equipment shall be inspected for leaks, spills, fugitive emissions, and signs of tampering.
- 3. Documentation of each inspection shall be included in the operating record. At a minimum, the record shall include:
  - a. date of the inspection,
  - identification of each device or operating system inspected, including part number or other descriptive identifier,
  - c. name of person(s) conducting the inspection,
  - d. description of any leaks, spills, or fugitive emissions observed, and
  - e. description of corrective measures taken as a result of the inspection.
- 4. All inspection records required by Condition V.J of this permit shall be retained and available for review for a period of three (3) years following the date on which the inspection record is completed. Records may be stored either electronically or in hard copy form, providing that a hard copy shall be made available to the Department upon request in the case where a record is stored electronically.

#### K. AUTOMATIC WASTE FEED CUTOFF (AWFCO) AND ALARMS

 General. For those parameters designated as AWFCO in Attachment 15 of this permit, the Permittee shall automatically cut off the hazardous waste feed when the monitored operating conditions exceed the set points specified therein or when the monitor does not produce valid data.

#### 2. Testing the AWFCO System

- a. The AWFCO system and associated alarms shall be tested in accordance with the SOP in Appendix 13.
- b. Within 30 days after the effective date of this permit, the SOP in Appendix 13 shall be updated to include procedures for weekly testing of the minimum combustion chamber temperature and maximum combustion air fan speed automatic waste feed cutosss.
- c. Each AWFCO valve shall be tested in accordance with Attachment 13 at least monthly to verify that the valve completely cuts off hazardous waste flow upon receipt of an appropriate signal from the AWFCO system.

d. AWFCO testing may be suspended when hazardous waste is not being burned in the boiler, provided that such testing is conducted prior to resuming hazardous waste feed.

#### 3. Failure of the AWFCO System

- a. If the AWFCO system fails to immediately and automatically cut off the hazardous waste feed when an AWFCO set point is exceeded or when any system component malfunctions, the Permittee shall immediately and manually cut off and lock out the hazardous waste feed.
- b. The Permittee shall submit an incident report to the Department within seven days of the occurrence of an incident that triggers action pursuant to Condition V.K.3.a. The incident report shall document the cause of the AWFCO system failure and the corrective action taken to prevent recurrence, or shall document the status of the permittee's investigation of the incident should the cause not be determined and/or the corrective action not be implemented within the seven day timeframe. In the latter instance, the incident report shall also provide a schedule for follow-up reports until the cause is determined and/or the corrective action implemented.

#### 4. Records

- a. The Permittee shall document each AWFCO in the operating record. At a minimum, documentation shall include the date and time, the known or suspected cause, and the corrective action(s) taken.
- b. The Permittee shall document in the operating record each AWFCO test required by Condition K.2. At a minimum, documentation shall include the date and time of the test, the name of the person responsible for conducting the test, and a thorough description of any failure of the system to perform appropriately.
- c. AWFCO records shall be maintained on-site for at least three (3) years. They shall be readily available at all times for inspection by any authorized representative of the Department or EPA.

## L. DIRECT TRANSFER OF HAZARDOUS WASTE

Transfer of hazardous waste directly to the boilers from a tank truck or any vessel, other than one of the hazardous waste storage tanks approved in Part IV of this permit, is prohibited.

#### M. RESIDUES

All residues removed from the boilers shall be handled as hazardous waste in accordance with the applicable requirements of 25 Pa. Code 260a-270a and 40 CRF 260-270.

## N. FACILITY MODIFICATIONS

Modification to the facility and/or modification to the provisions of this permit are subject to the requirements of 25 Pa. Code 270a.41-43 and 40 C.F.R. 270.41-43, relating to changes to permits, except when changes to emission standards, operating limits and/or monitoring requirements are implemented pursuant to a trial burn plan approved by the Department (see Condition G-5).

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#### O. TRANSITION TO MACT

The boilers subject to Part V of this permit are subject to the MACT standards for liquid fuel boilers. The MACT rule was promulgated on October 12, 2005 with a compliance date of October 12, 2008. After the Permittee submits its MACT Notification of Compliance (NOC) and receives a written finding of compliance pursuant to 40 C.F.R. 63.6(f)(3), the provisions of Part Vof this permit, except Sections J, L, and M are void.

Although the emission standards and operating conditions of this permit will no longer apply at that time, the boilers will remain hazardous waste treatment units and the facility will remain subject to all other applicable RCRA requirements. In addition, the Department retains its authority under 40 C.F.R. 270.32(b)(2) to require permit terms and conditions beyond those required under the MACT rule, as necessary to protect human health and the environment.

Date Signed

James Wentzel, P.E.

Regional Manager

Waste Management Program

FOR THE DEPARTMENT

#### LIST OF ATTACHMENTS

- 1. Waste Analysis Plan (Vol. 1, Section C-2, of the renewal application and the Waste Analysis Plan for the BIF Units, revised December 15, 2006, of the BIF modification application)
- 2. Inspection Requirements (Vol. 2, Section F of the renewal application and boiler inspection plan contained in May 23, 2006, submittal)
- 3. Personnel Training (Vol. 2 Section H of the renewal application)
- 4. PPC Plan (Vol. 2, Section G of the renewal application)
- 5. Aisle Space Requirement (Vol. 2, Section F-3b of the renewal application)
- 6. Closure Plan ((Vol. 2, Section I of the renewal application)
- 7. Container Management Plan (Vol. 1, Section D of the renewal application)
- 8. Tank Management Plan (Vol. 1, Section D-2 of the renewal application)
- 9. Special Requirements for Incompatible Wastes (Vol. 2 Section F-5 of the renewal application)
- 10. Containment Liquid Assessment and Liquid Removal (Vol. 1, Section D of the renewal application)
- 11. Enhanced Fugitive Emission Control Plan (May 23, 2006) submittal of the BIF modification application.
- 12. Monitoring Equipment Calibration Procedures (Trial Burn Plan, dated April 29, 2006, Appendices F and N, or as updated by letter dated July 16, 2007)
- 13. AWFCO test procedures (Trial Burn Plan, dated April 29, 2006, Appendix E)
- 14. Table V.C (page 28of this permit)
- 15. Table V.I (page 29 of this permit)

 $\frac{\text{Table V.C}}{\text{PCDD/PCDF TOXICITY EQUIVALENCY FACTOR VALUES}}$ 

Congener	TEF
2,3,7,8-Tetrachlorodibenzo(p)dioxin	1.0
2,3,7,8-Tetrachlorodibenzofuran	0.1
1,2,3,7,8-Pentachlorodibenzo(p)dioxin	1.0
1,2,3,7,8-Pentachlorodibenzofuran	0.05
2,3,4,7.8-Pentachlorodibenzofuran	0.5
1,2,3,4,7,8-Hexachlorodibenzo(p)dioxin	0.1
1,2,3,6,7,8-Hexachlorodibenzo(p)dioxin	0.1
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1
1,2,3,7,8,9-Hexachlorodibenzo(p)dioxin	0.1
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1
1,2,3,4,6,7,8-Heptachlorodibenzo(p)dioxin	0.01
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01
1,2,3,4,6,7,8,9-Octachlorodibenzo(p)dioxin	0.0001
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	0.0001

Source: World Health Organization (1998)

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<u>Table V.I</u>

Continuous Monitoring Requirements

Parameter	Boiler 1 Instrument I.D.	Boiler 2 Instrument I.D.	Units	Averaging Period	Recording Frequency	Calibration Frequency	AWFC0	/Alarm Setpoint
minimum combustion zone temperature	TH-5751		°F	HRA	continuous	annually	AWFCO	1390
maximum hazardous waste feed rate	FH-5726		gal/hr	HRA	continuous	annually	AWFCO	1500-each boiler 2000-total
minimum atomizing steam differential pressure (vs. waste feed pressure)	PD-5739		psig	One-minute	continuous	annually	alarm	40
maximum combustion chamber pressure	PI-5756A		in. w.c.	none	each minute see note (1)	annually	alarm	0
maximum combustion air fan speed (indicator of exhaust gas flow rate)	SI-5708		RPM	HRA	continuous	annually	AWFCO	2690
minimum steam production rate	FI-5722		kpph	HRA	continuous	annually	alarm	37
maximum carbon monoxide in the exhaust gas	AH-5712		ppmv @ 7% O <sub>2</sub>	HRA	continuous	daily	AWFCO	100
oxygen in the exhaust gas	AI-5711		%	NA -	continuous see note (2)	daily		

Notes (1) Permittee shall record either the 1-minute average value or the instantaneous reading at 1-minute intervals.

<sup>(2)</sup> Oxygen monitoring is required only to allow for continuous correction of carbon monoxide data to 7 % O<sub>2</sub>.

## **RESPONSE TO COMMENTS**

RCRA Permit No. PAD 002 312 791 Sunoco, Inc. (R&M) – Frankford Plant City of Philadelphia

By letter dated January 11, 2002, the Pennsylvania Department of Environmental Protection (Department) received a permit application from Sunoco, Inc. (R&M) (Sunoco) for the modification of its Frankford Plant's RCRA Part B permit to incorporate the operation of two hazardous waste liquid fired boilers. After several rounds of administrative and technical reviews, the Department prepared a draft permit. On January 10, 2007, copies of a draft permit were mailed to the applicant, host municipality, and USEPA. In addition to the mailings, a notice of a draft action was published in a local newspaper proximate to the facility and in the *Pennsylvania Bulletin*. All notices provided a forty-five day comment period. Additionally, copies of the draft permit were available for public review at the Department's Southeast Regional Office or by contacting the Southeast Regional Office Waste Management Program Manager. Comments on the draft action were received from the applicant. No comments were received from the public, USEPA, or the host municipality.

On September 19, 2007, a final permit was issued. Commensurate with the final permit action, this response to comments has been prepared pursuant to 25 Pa. Code 270a.10(c)(13). Throughout the review of this application and the drafting of this permit, the Department relied upon USEPA for technical guidance and input. Accordingly, the Department also relied to a significant degree upon USEPA input in the preparation of this response document. Consequently, the use of "we" and "us" in this document refers to the Department and/or USEPA.

This permit is issued pursuant to authority granted by Pennsylvania's Solid Waste Management Act (35 P.S. §§ 6018.101 et seq.). Relevant regulations implementing the Solid Waste Management Act are found in 25 Pa. Code Chapters 260a - 270a. Each of those Chapters incorporates the corresponding Federal regulations (40 CFR Parts 260 - 270) by reference, except to the extent expressly provided in the implementing Pennsylvania regulations.

Throughout the remainder of this document, when it is necessary to refer to specific regulatory language, we cite the Federal regulation(s) except when the Pennsylvania regulation does not incorporate, either in part or in its entirety, the corresponding Federal requirement. We have done this for the convenience of the reader, because that is where the applicable regulatory language is published.

#### General

Comment Summary: Sunoco objects to the imposition of additional permit conditions beyond the requirements of the regulations where the Department has failed to demonstrate why the existing regulations, which are adequately protective of human health and the environment at boiler and industrial furnace (BIF) units generally, are insufficient at this facility. The imposition of such terms and conditions would be arbitrary and capricious.

Comment Response: The Department agrees that, in cases where we impose additional emission standards or operating conditions that are beyond the scope of existing regulatory requirements, it is incumbent on us to justify our action in terms of protecting human health and/or the environment. The only remaining permit conditions to which Sunoco objects and for which we cited the RCRA "omnibus" provision as part of our authority are those intended to control the feed and emission rates of inorganic (e.g., metals and chloride) waste constituents. As discussed later in this document, we believe that the link to the protection of human health and the environment is quite straightforward in cases where we found it necessary to impose feed and emission limits beyond those that would be required pursuant to the BIF Tier 1A procedure.

We also note that existing regulations grant the permitting agency other authorities to establish permit conditions beyond those that are explicitly required by regulation. 40 CFR 270.32(b)(1) grants authority to "include permit conditions necessary to achieve compliance with the (Resource Conservation and Recovery) Act and regulations, including each of the applicable requirements specified in 40 CFR Parts 264 and 266 through 268 of this chapter. In satisfying this provision, the Administrator (or, in this case, the Pennsylvania Department of Environmental Protection) may incorporate applicable requirements of parts 264 and 266 through 268 of this chapter directly into the permit or establish other permit conditions that are based on these parts. (underline added) In those instances, the Department need not demonstrate that the specific requirements of part 266 are inadequate to ensure protection of the environment as well as the protection of the public health, safety and welfare. Rather, we need only demonstrate that the provision is reasonably necessary to ensure compliance with the applicable statute or regulatory requirement. In addition, 40 CFR 266.102(e) grants the Department the authority to require "such other operating requirements as are necessary to ensure that" the DRE, particulate, metals, and HCl/Cl<sub>2</sub> standards are met. Finally, 25 Pa. Code 270a.32 replaces the term "section 3005" in 40 CFR 270.32(b)(2) with "sections 501-503 of the act" (35 P.S. §§ 6018.501-6018.503 of the Pennsylvania Solid Waste Management Act). Section 503(f) of the Solid Waste Management Act allows the Department to impose such other terms and conditions, as it deems necessary or proper to achieve the goals and purposes of this act. (underline added)

We have addressed Sunoco's specific comments in the responses that follow.

V.D.2.c. Comment Summary: Sunoco requests that the maximum allowable concentration of ash in the hazardous waste feed be increased from 0.23% to 0.31%. The 0.23% value is based on data collected between 1992 and 2005, whereas the 0.31% value is based on the two most recent data sets collected in the last five years. Sunoco also asserts that a 10% "safety factor" included in the calculation that resulted in the 0.23% value is inappropriate.

Comment Response: The ash feed rate limit is based on the methodology proposed by Sunoco in its approved Trial Burn Plan. See Section 4.7 of the "Sunoco RCRA Part B Permit Modification, Section E, Trial Burn Plan for Industrial Boilers 1 and 2, Revision 1, April 29, 2005." The current request to revise the approved methodology is both untimely and unjustified.

Sunoco's trial burn plan proposed to calculate an ash feed rate limit based on the results of all particulate tests completed since the boilers were first regulated under RCRA. The ash concentration limit in the draft permit was calculated following exactly that methodology, adding the results of the 2005 trial burn test to the database (resulting in a slightly less stringent limit).

Sunoco now wishes to change their proposed approach by including only the last two test results in the calculations. We find no justification for this revision. Sunoco has not reported any fundamental changes in the burner design, boiler operating conditions, or waste composition that would render pre-2002 data invalid. Therefore, the Department believes that the entire database provides a more statistically robust estimate of the relationship between ash feed concentration and particulate emissions.

The 10% safety factor to which Sunoco now objects is the same safety factor proposed by the company in its Department-approved trial burn plan. It was an essential consideration in the approval of an alternative particulate matter compliance methodology. Given the demonstrated variability in the relationship between ash feed rate and particulate matter emission rate, as well as the uncertainties involved in extrapolating Sunoco's test results to the regulatory limit, the safety factor is both necessary and appropriate.

Sunoco's mention of the UTL (upper tolerance limit) approach and the 5-year data period used in the waste analysis plan is spurious. The UTL is a tool that allows the company to statistically estimate the worst-case daily concentration of ash in the waste feed based on relatively infrequent (i.e., much less than daily) waste analysis. The 5-year data limit is a way to ensure that the database is not

The BIF rule requires compliance with all permit requirements, including the ash feed rate

so large that a true change in waste composition would go undetected for an extended time period. That is the only context in which either the UTL approach or the 5-year data limit were "reviewed and approved by EPA" as Sunoco asserts. This is wholly unrelated to the process for establishing a relationship between ash feed rate and particulate emission rate. Any implication that either EPA or the Department has approved the use of a UTL calculation or a 5-year data limit in determining the ash feed/particulate emission relationship is erroneous. Furthermore, even though Sunoco's comment refers to use of a UTL in calculating their proposed 0.31% ash feed rate limit, no UTL is actually calculated in the supporting documentation that accompanied the comment.

Finally, we note as a matter of perspective that, based on historical ash analysis data provided by Sunoco, the actual 95% UTL ash concentration (based on any 5-year time interval) has never exceeded approximately 60% of the proposed 0.23% limit. Since individual sample results have only minimal effects on the UTL, we conclude that if the UTL were to approach the 0.23% limit, this would indicate a fundamental change in the nature of the waste feed that would require reevaluation of the entire permit by the Department.

Action: Final permit conditions are retained as proposed.

V.E.4. Comment Summary: Sunoco requests that those feed rates in Section E-4 that are based on extrapolations from the site specific risk assessment be deleted and replaced with feed rates based on Adjusted Tier 1A under RCRA, or emission limits based on the HWC MACT. The company states that its site-specific risk assessment (SSRA) demonstrates that human health and the environment is protected even at maximum feed rates. Therefore, no additional risk-based controls are required, and none can be imposed under omnibus authority.

Comment Response: Sunoco's comment is misleading. While part of the trial burn was, in fact, done at the maximum hazardous waste feed rate, there was no attempt to maximize the feed rate of any hazardous constituents in the waste stream.

The SSRA demonstrates that there will be no unacceptable risks from the boilers when emission rates and other emission characteristics do not exceed those modeled in the risk assessment. For all constituents, however, the emission rates modeled in the risk assessment were below the Adjusted Tier 1 allowable feed/emission rates, most often by several orders of magnitude. Consequently, the risks associated with operating at the Adjusted Tier 1 limits are significantly

limit, at all times. (40 CFR 266.102(e)(1)) The UTL approach enables the company to reduce its waste sampling and analysis frequency while still providing reasonable assurance of compliance with the ash feed rate limit at all times.

higher than those reported in the risk assessment.

In Sunoco's risk assessment, the constituent-specific risks are linearly proportional to the constituent feed rate. This principle was used in setting the constituent-specific feed and emission rates for the draft permit by extrapolating from the conditions modeled in the risk assessment to the corresponding feed/emission rates at the target risk levels of 1 in 100,000 (carcinogenic risk) and 0.25 (noncancer hazard index). The constituent feed and emission rates were then set at the lower of that value or the BIF Tier 1A limit.

We see no basis to support Sunoco's assertion that we lack regulatory authority to limit hazardous constituent feed rates to those levels at which Sunoco's own risk assessment would predict risks above acceptable target levels. Both the RCRA statute (§3005(c)(3)) and applicable regulations require that each RCRA permit contain such terms and conditions as the Administrator/Department determines necessary to protect human health and the environment. Given the well-documented evidence that, for certain constituents, operating at the BIF Tier 1A feed rate would likely cause unacceptable risks, the Department finds that further limits on those constituents are necessary to protect human health and the environment.

Sunoco also cites the maximum achievable control technology (MACT) provisions (40 CFR 63.1200 et seq.) of the Clean Air Act as a possible source of appropriate constituent feed rate limits. MACT standards that are applicable to Sunoco's boilers were promulgated on October 12, 2005 (70 FR 59402 et seq.). Somewhat different formats make direct comparison of the MACT standards to emission limits determined either by BIF Tier 1A or a risk-based approach inexact. In general, however, the MACT standards do set more stringent limits for most constituents. Therefore, they do, indeed, provide "a substantial degree of protection to human health and the environment" as cited in the comment. Nevertheless, they are technology-based, not risk-based, standards that cannot ensure protection of public health under all circumstances. In addition, as Sunoco notes elsewhere in their comments, the Department has no authority to require early compliance with the MACT emission standards through its hazardous waste permit conditions.

Once again, we note for perspective that, for all of the regulated constituents, the historical concentrations of those constituents in the waste feed would readily comply with the constituent feed rate permit conditions. In that context, the permit limits serve an additional purpose. Beside their direct link to health risk, an exceedence of one or more of the limits would indicate a fundamental change in the waste feed composition. Such a change would warrant review by the Department to determine whether the existing trial burn remains an adequate demonstration of compliance with the standards.

Action: No permit changes on this basis. Some constituent feed and emission rates have been changed based on other criteria (see below).

V.E.4. Comment Summary: Sunoco contends that because the risk assessment demonstrated that dioxins and furans (D/F) did not contribute significantly to the predicted risk, the Department has no authority to impose D/F emission limits on the boilers. (Note: Although included in Sunoco's comments on V.E.4 of the draft permit, the D/F limitations can be found in V.C.8 of the draft permit.)

Comment Response: Sunoco's site-specific risk assessment (SSRA) demonstrates only that D/F emissions do not produce an unacceptable risk when D/F are emitted at the rates and under the physical conditions modeled in the SSRA. We disagree with the assertion that the Department lacks authority to limit D/F emissions. Nevertheless, other permit controls (i.e., the carbon monoxide emission limit and the organic destruction and removal efficiency standard) are generally sufficient to ensure that D/F emissions will remain in the range measured during Sunoco's trial burn. (See 70 FR 59461, discussion of D/F control for liquid-fueled boilers without air pollution control equipment).

Action: The Department has withdrawn the D/F emission standard of V.C.8 from the final permit.

V.E.4. Comment Summary: The site-specific risk assessment (SSRA) has been updated to correct an error in the calculation of the risk from lead, and to correct certain assumptions regarding the receptors for mercury. Sunoco requests that the proposed feed and emission rates be adjusted accordingly. The company also asserts that the mercury feed rate limit proposed in the draft permit is below the detection limit of their waste analysis method.

Comment Response: We have reviewed the SSRA changes and find them acceptable. The allowable feed and emission rates for lead and mercury have been adjusted based on the revised risk estimates. The revised lead limits are now determined in accordance with the BIF Adjusted Tier 1 procedure. The revised mercury limits are determined according to the same methodology used in the draft permit, but using the revised risk estimates. The resulting feed rate limit is above the detection limit for mercury in the waste feed that was reported in the trial burn report.

Action: The allowable lead feed and emission rate limits are revised from 3.07 to 1282 grams per hour in V.C.7 and V.E.4. The allowable mercury feed and emission rate limits are revised from 0.113 to 0.904 grams per hour in V.C.7 and V.E.4.

V.E.9. Comment Summary: Sunoco requests that the atomizing steam differential pressure operating limit be changed from 40 to 20 pounds per square inch (psi). The company cites EPA guidance, which says that this parameter limit should be set based on the manufacturer's recommendation. Sunoco also asserts that Babcock and Wilcox, the boilers' manufacturer, recommends a differential pressure between 20 and 40 psi.

Comment Response: During Sunoco's trial burn, the atomizing steam differential pressure ( $\Delta P$ ) averaged a very steady 50 psi (10 psi <u>above</u> the high end of the manufacturer's recommendation, according to Sunoco). Even one-minute average values never deviated by more than 3 psi from the hourly average.

The 1989 EPA guidance<sup>2</sup> referenced by Sunoco, though somewhat dated, still provides useful guidelines for writing hazardous waste combustion permits. Nevertheless, this guidance–or any guidance–cannot be applied blindly without consideration of site-specific circumstances. In this case, Sunoco asks us to accept their undocumented and unsubstantiated assertion that operations during the trial burn at a  $\Delta P$  that was beyond the high end of the manufacturer's recommendation will produce emissions that are equivalent to those expected when operating at a  $\Delta P$  that is just 40% of the trial burn level. We believe that this argument lacks credibility.

In setting the proposed permit condition of 40 psi, we followed the spirit of the 1989 EPA guidance while being mindful of the actual trial burn conditions. That is, we did not base the limit strictly on operation during the trial burn. Rather, we considered the trial burn operating condition and then, using professional judgment, set the limit at a level which ensures that operations do not deviate significantly from those of the trial burn while allowing some operational flexibility. If Sunoco produces data demonstrating that droplet size and the flame pattern are not significantly affected by changing the  $\Delta P$  from 50 to 20 psi, they may submit a permit modification request at any time.

Action: The 40 psi operating limit is retained to ensure that daily operations are comparable to those during the trial burn.

V.F.2 Comment Summary: Sunoco requests that the boilers be allowed to operate and V.E.10 under positive pressures during malfunctions.

Comment Response: The BIF regulation provides three options for controlling

U.S. Environmental Protection Agency, "Guidance on Setting Permit Conditions and Reporting Trial Burn Results, Volume II of the Hazardous Waste Incineration Guidance Series", EPA/625/6-89/019, January 1989

fugitive emissions. (See 40 CFR 266.102(d)(7)) The two options that are potentially relevant to Sunoco are maintaining the combustion zone pressure below atmospheric pressure or an alternative means of control that is equivalent to maintaining combustion zone pressure below atmospheric pressure. As with all RCRA BIF provisions, there are no exceptions at any time, including during startup, shutdown, and malfunctions.

In pre-trial burn discussions, the company indicated that the boilers, using their current fans, could not maintain negative pressures 100% of the time while conducting sootblowing. We considered the environmental benefits associated with frequent and thorough sootblowing and weighed them against the increased risk of fugitive emissions when the boilers operate under positive pressure. We concluded that, within certain pressure limits and with an enhanced maintenance plan to maintain well-sealed boilers, the benefits should offset the increased risks. Consequently, we agreed to allow positive pressures up to 0.15 inches of water column during sootblowing only, provided that positive pressures did not occur more than 30 minutes per day and provided that Sunoco complies with enhanced fugitive emission inspection and maintenance procedures. We agreed to this expansive interpretation of what is "equivalent to maintenance of combustion zone pressure lower than atmospheric pressure" due largely to the energy and environmental benefits of proper sootblowing.

Now, Sunoco requests that we provide a very broad exception to cover all malfunctions.<sup>3</sup> We find no reason to consider this as equivalent to maintaining negative pressure in the combustion zone at all times, nor do we find any offsetting energy or environmental benefits.

Action: The fugitive emission requirements proposed in the draft permit are retained in the final permit.

V.I.1.a. Comment Summary: Sunoco alleges that 40 CFR 266.102(e)(8) does not support draft permit sections V.I.1.a.(i) and (ii) which require hazardous waste burning to cease when a monitor required by the permit malfunctions. Sunoco requests that those sections be deleted from the permit.

Comment Response: We disagree with Sunoco's assertion. The plain language of 266.102(e)(8)(i) says that the owner or operator must "monitor and record"

<sup>&</sup>lt;sup>3</sup> Since the boilers are not designed to be operated under positive pressure, positive pressures caused by anything other than sootblowing would, presumably, be considered the result of a malfunction.

certain parameters "at a minimum, while burning hazardous waste. "If the facility is unable to monitor and record one or more of those parameters due to a malfunction, then it may not burn hazardous waste. The only option is the manner in which the waste feed must be terminated.

Condition V.I.1.a.i. requires that, when a monitor associated with the automatic waste feed cutoff (AWFCO) system malfunctions, it must trigger an AWFCO. Five monitors are included in this category for Sunoco's permit: combustion zone temperature, hazardous waste feed rate, combustion air fan speed, carbon monoxide in the stack gas, and oxygen in the stack gas (the latter is actually only a component of the CO monitoring system). All of these parameters are monitored to demonstrate ongoing compliance with the destruction and removal efficiency (DRE) standard of 40 CFR 266.102(e)(2). Absent any portion of this data, the only way for the Department to ensure that the DRE performance standard of 266.104(a) is met would be to ensure that hazardous waste is not being fed. That is the goal of this provision. Therefore, the Department has acted within its authority (266.102(e)(2)(G)) to set such other operating requirements as are necessary to ensure compliance.

This condition is further supported by 40 CFR 266.102(e)(7)(ii), which requires the unit to be "operated with a functioning system that automatically cuts off the hazardous waste feed when operating conditions deviate from those established under this section." One operating condition of the permit is that the monitor and associated AWFCO controls must be "functioning." Consequently, a malfunction of an AWFCO component is cause for triggering an AWFCO. In other words, the system must "fail-safe."

Condition V.I.1.a.ii. sets a slightly less rigorous requirement for those monitoring components that are not part of the AWFCO system. If one of those monitors malfunctions, the permit simply requires that the boiler operator take immediate action to stop the hazardous waste feed as soon as possible consistent with safe boiler operation. As discussed above, 40 CFR 266.102(e)(8) requires that monitors be functioning while burning hazardous waste. Therefore, if the monitor malfunctions, hazardous waste feed must be stopped.

Action: The permit conditions remain as proposed.

<sup>&</sup>lt;sup>4</sup> Note that this section names specific operating parameters that must be monitored. As indicated by the regulatory language, however, these are <u>minimum</u> requirements. The various subsections of 266.102(e) (see, e.g., 266.102(e)(2)(i)(G), (e)(3)(E), etc.) grant the Department authority to include other monitoring requirements deemed necessary to ensure that performance standards are met.

V.I.1.b Comment Summary: Sunoco alleges that draft permit condition V.I.1.b., which requires all monitors to be fully operational for 60 minutes prior to starting hazardous waste feed, is an "unprecedented and unwarranted" extension of 40 CFR 266.102(e)(2)(iii). They specifically state that the hazardous waste feed rate monitors and the atomizing steam differential pressure monitor cannot operate until hazardous waste feed is initiated. Sunoco requests that this provision be deleted from the permit.

Comment Response: 40 CFR 266.102(e)(2)(iii) requires that, during start-up, hazardous waste may not be fed until the boiler is "operating within the conditions of operation specified in the permit." Since most of the continuous monitoring requirements are specified as hourly rolling averages, it follows that those monitors must be operational for at least one hour prior to commencing waste feed in order to appropriately demonstrate that the unit is operating within the permit limits at the time hazardous waste feed starts. The Department also believes that good operating practices dictate that all monitors be operational for at least one hour prior to starting waste feed as a way to demonstrate that the unit is operating under well-controlled, steady-state conditions that are conducive to good combustion. Nevertheless, we acknowledge that the permit averaging time for the minimum atomizing steam differential pressure is only one minute and there is no averaging time for the combustion chamber pressure. Therefore, in response to Sunoco's comment, we have modified condition V.I.1.b. to require that the monitors be fully operational for one full averaging period (specified in Table V of the permit) prior to starting hazardous waste feed.

We disagree with the assertion that hazardous waste feed rate and atomizing steam differential pressure cannot be measured prior to starting the hazardous waste feed. Hazardous waste feed rate must be measured over the full range of feed rates—including zero. Unless this parameter is monitored prior to start-up, it would be impossible to determine definitively when start-up actually occurred. Similarly, there is no reason why both the waste feed pressure and the atomizing steam pressure (hence, the differential pressure) cannot be measured prior to beginning waste feed. Even if the waste feed pressure is zero, it can be measured.

Action: Condition V.I.1.b has been modified to require that monitors be operational for one averaging period, rather than 60 minutes.

V.I.1.c. Comment Summary: Sunoco also alleges that this section, which requires monitors to continue operating for at least 30 minutes after hazardous waste feed is terminated, is an "unprecedented and unwarranted extension of 40 CFR 266(e)(2)(iii)." They request that it be deleted from the permit.

Comment Response: We have re-evaluated the need for this provision. We

have concluded that it is unnecessary for ensuring continuous compliance with the permit conditions. Consequently, it has been deleted. Because all hazardous waste derived gases will exit the boiler within seconds after hazardous waste feed is terminated, further monitoring of operating parameters is not necessary to ensure that all permit conditions are met while hazardous waste is in the boiler. Nevertheless, continuing to monitor operating parameters after waste feed ends, particularly following an AWFCO, is generally in the facility's best interest as it would allow for the earliest possible resumption of hazardous waste operations.

Action: Condition V.I.1.c has been deleted from the permit and V.I.1.d and e are renumbered VI.1.c and d in the final permit.

V.I.1.d. Comment Summary: Sunoco requests that Condition V.I.1 be deleted in its entirety and then goes on to discuss Conditions V.I.1.a-c separately. Responses to the request to delete or revise Conditions V.I.1.a-c are discussed above. Inherent in Sunoco's request to delete V.I.1 is that that conditions V.I.1.d. and V.I.1.e are also to be deleted. However, there is no discussion or explanation to support this request.

Comment Response: Condition V.I.1.d is taken nearly verbatim from the 40 CFR 266.102(e)(6)(i)(B)(I)(i) definition of continuous monitor. It does not add or change any substantive requirement and is included here only to enhance the permit's clarity.

Condition V.I.1.e. is a practical adaptation of the definition of continuous monitor to allow digital recording of an instantaneous operating parameter. §266.102(e)(6)(i)(A) authorizes the Department to establish instantaneous limits. However, a strict reading of the definition of instantaneous limits in the regulation would preclude the use of modern digital recording methods. By definition, digital recorders do not record "the value that occurs at any time" because they record data only at discrete intervals. The Department finds that Condition V.I.1.e. is merely a reasonable adaptation of the BIF regulation to account for modern data recording technology.

Action: Conditions V.I.1.d. and V.I.1.e. are both retained in the permit except that, with the deletion of Condition V.I.1.c. (above), V.I.1.d and e are renumbered VI.1.c and d in the final permit.

V.I.4. Comment Summary: Sunoco requests that there be no limit on the time during which the boiler may continue burning hazardous waste while conducting daily calibration of the carbon monoxide and oxygen monitors. In their original comments, Sunoco stated, without supporting evidence, that the 20-minute period allowed by this condition is insufficient "due to the physical configuration and

maintenance requirements of the equipment." They also indicated that up to two hours are required for quarterly calibrations. Finally, the company alleged that this provision is improperly based on HWC MACT provisions that are not yet applicable to Sunoco's boilers.

As a follow-up to these comments, we asked Sunoco (by email dated July 2, 2007) to elaborate on why a longer calibration time was needed and what that suitable time would be. Sunoco responded (by email dated July 9, 2007) that the stack gas emission monitoring systems on these boilers are not only equipped with CO and O2 emission monitors but also include NOx and opacity monitors for regulatory requirements outside the BIF program. According to Sunoco, these four CEM systems are integrated together. They require daily calibration and are tracked in the control system as one unit when taken off line. In addition, the same stack gas conditioning system and stack gas sample distribution lines are used for the O2, CO, and NOx analyzers. This means that when one analyzer is being calibrated or maintained, the other two analyzers have to be off line. Therefore, Sunoco asserts that the 20-minute guideline cannot be met with their present configuration. The company did not respond to the Department's request to specify a finite calibration time that would be achievable with this configuration.

Comment Response: As indicated in the communication from EPA to Sunoco<sup>5</sup> that is cited in the original comment, the BIF rule requires compliance with the monitoring requirements at all times when waste is in the unit. It does not allow any exceptions. However, consistent with EPA guidance<sup>6</sup>, we have made a practical accommodation that allows Sunoco up to 20 minutes to conduct daily calibration of each CO monitoring system. We believe that this is a reasonable application of the Department's discretion. However, we are compelled to minimize any deviation from the regulation. An open-ended calibration exception, as requested by Sunoco, would not be appropriate.

According to the EPA Guidance, 20 minutes is the <u>maximum</u> time typically needed for calibration by state-of-the-art (in 1992) continuous emission monitoring systems (CEMS). This time limit has been successfully applied by permit to a wide variety of boilers and other hazardous waste combustion units since 1992. Since 2002, it has been applied by regulation to many of those same

<sup>&</sup>lt;sup>5</sup> Email communication from Gary Gross, EPA, to Paul Persing, Sunoco, dated November 20, 2006, Re: Comments to Draft Permit

<sup>&</sup>lt;sup>6</sup> U.S. Environmental Protection Agency, "Technical Implementation Document for EPA's Boiler and Industrial Furnace Regulations", Section 6.2.1., EPA 530/R/92/11, March 1992

hazardous waste combustors through the HWC MACT rule<sup>7</sup>. Consequently, we find that the 20-minute calibration time is readily achievable and that it is, in effect, an industry standard that is already applicable to most other hazardous waste combustors.

The CO/O<sub>2</sub> systems serve a very different purpose than either the NO<sub>x</sub> or opacity monitors. The CO/O<sub>2</sub> systems provide the only quick-response mechanism to detect combustion upsets that could have an immediate adverse effect on public health. They are the only emission monitors that are part of the automatic hazardous waste feed cutoff system. On the other hand, both NO<sub>x</sub> and opacity monitors are intended to monitor long-term emissions of pollutants for which short-term variations are unlikely to have significant health consequences. For long-term monitoring, 95% monitor availability is usually considered adequate. For short-term CO monitoring, which has a direct—and critical—link to protecting public health, the BIF rule requires 100% monitor availability.

Sunoco has not described any unique features of their boilers' design that would preclude them from meeting the regulatory guideline. In fact, the only reason that the monitors cannot meet the guideline (according to Sunoco) appears to be because the CO/O<sub>2</sub> system calibration has been coupled with calibration of other, unrelated emission monitors. Although we do not object to this approach per se, it does not justify a less stringent monitoring requirement. If necessary to meet the regulatory guideline, the monitoring systems should be decoupled. Should Sunoco document site-specific circumstances that make the 20-minute time limit impractical at their facility, they may submit that information and propose a specific alternative to be incorporated into the permit upon approval. However, the need to make reasonable changes in monitoring system design is not, in itself, a reason to consider the current limit impractical.

Although this provision is consistent with the HWC MACT, that is not our basis for including it in this permit. Our authority comes from 40 CFR 266.102(e)(1) which requires compliance with the operating requirements (including continuous monitoring of CO, corrected to 7% O<sub>2</sub>) at all times when hazardous waste is burned.

Finally, we note that the exception provided by this permit condition is intended only for daily calibration. Quarterly and annual calibrations should be scheduled to coincide with a time when the unit is burning fossil fuel.

<sup>&</sup>lt;sup>7</sup> 40 CFR Part 63, Subpart EEE, Appendix §6.2

Action: The condition is retained with language added to provide Sunoco a mechanism to justify, and seek approval of, a suitable alternative.

V.K.1. Comment Summary: Sunoco proposes to delete a phrase that requires the automatic waste feed cutoff (AWFCO) to activate whenever a component monitor is not producing valid data. The comment asserts that this is an attempt to implement a Hazardous Waste Combustor MACT requirement through the omnibus provisions of RCRA.

Comment Response: The Department's rationale for this provision is also discussed above under condition V.I.1.a. It is unrelated to the HWC MACT or the RCRA omnibus provision. Rather, it is based on the Department's authority to establish such other operating requirements as are necessary to ensure that the (DRE, particulate, metals, HCl and Cl<sub>2</sub>) standards are met<sup>8</sup> and to require that waste feed be automatically cut off when operating conditions deviate from those established under this (BIF permitting) section<sup>9</sup>. The requirement to have a functioning AWFCO system is, itself, an operating condition of the permit. Consequently, the malfunction of any component that would prevent the AWFCO system from operating as intended must result in an automatic cut off of hazardous waste feed.

Action: No change.

V.K.3. Comment Summary: This provision requires Sunoco to cease burning hazardous waste, pending Department review, when the AWFCO system fails to operate as intended. The company requests that it be deleted from the permit. The company also asserts that the provision is an inaccurate and incomplete paraphrase and summary of the requirements of the HWC MACT rule.

Comment Response: Any similarities or differences with the HWC MACT rule are coincidental and irrelevant. This permit is issued only under RCRA authority.

The BIF rule relies primarily on the AWFCO system as the "last line of defense" against noncompliance with key operating parameters. As such, it is also the last line of defense against presumed emission standard exceedences. That is why both the regulations and the permit include requirements for frequent testing of the system's operability. The Department fully expects that the AWFCO system

<sup>&</sup>lt;sup>8</sup> See, for example, 40 CFR 266.102(e)(2)(i)(G), 266.102(e)(3)(i)(E), 266.102(e)(4)(i)(J), and 266.102(e)(5)(i)(G)

<sup>9 40</sup> CFR 266.102(e)(7)(ii)

will operate as intended. If, however, the system should fail to operate when appropriate, then the permittee would not be in compliance with the requirements of 40 CFR 266.102(e)(7)(ii).

V.K.3.a is intended to ensure that Sunoco has a functioning AWFCO system (as required by 40 CFR 266.102(e)(7)(ii)) at all times when hazardous waste is burned (as required by 40 CFR 266.102(e)(1)). If the AWFCO system is not fully functional, then V.K. 3.a required immediate action by the boiler operator to manually institute the hazardous waste feed cutoff that should have been triggered automatically. It is both reasonable and necessary that the Department be given notice of such a serious event. Therefore, V.K.3.a requires Sunoco to submit an incident report to the Department within seven days describing any AWFCO failure. Note that this provision applies only if an operating parameter limit (e.g., CO > 100 ppmv, HRA, corrected to 7%  $O_2$ ) were exceeded and the AWFCO system failed to automatically cut off the hazardous waste feed. It would not apply to a system failure that was automatically detected by the system itself (resulting in an AWFCO) or as a result of the periodic system testing (required by V.K.2), as long as no operating parameter limit is exceeded.

As proposed in the draft permit, V.K.3.b would have required the hazardous waste feed to remain off for up to seven days after submission of the incident report or until the Department approved the resumption of hazardous waste feed, whichever occurred earlier. We have reconsidered that provision and eliminated it from the final permit. V.K.3.b has been revised to incorporate the incident reporting requirement previously contained in V.K.3.a, but it does not require that hazardous waste feed remain off pending the Department's review. We believe the onus for ensuring that the AWFCO system operates properly should rest primarily with the permittee.

Action: Conditions V.K.3.a and V.K.3.b retained, but revised as discussed above.

# Comments

Supplemental Comment Summary: In Sunoco's July 9, 2007, email response to a request for additional information, Sunoco requested that the permit reference the plant calibration procedures so that any future modifications or improvements to the system could be accommodated without requiring a permit amendment. By letter dated July 16, 2007, revised standard operating procedures (SOP) were submitted for Differential, Absolute, and Gauge Pressure Transmitter Checkout and Calibration: Vortex Flow Transmitter Checkout and Calibration; and Continuous Emission Monitoring System Daily Calibration.

> Comment Response: The SOP submitted in Sunoco's July 16th submittal are the same as were previously contained in Appendices F and N of the Trial Burn Plan,

dated April 29, 2006, as incorporated into the permit by general reference (see page 1) and by specific reference (see List of Attachments, No. 12). Since these SOP are supporting documents referenced in the permit, modification to them cannot be accommodated without a permit amendment. However, changes or revisions to these documents as part of the plant's process improvement process should be easily handled as Class I modifications in accordance with 25 Pa. Code 270a.42 and 40 CFR 270.42(a)(1) and pursuant to Appendix I to § 270.42. This is essentially a notification process that requires the permittee to provide notice of the modification and the reasons for the change, and it does not require Department approval prior to putting the modification into effect so long as the modification properly falls into a Class I category.

Action: No change.

## Comments

Supplemental Comment Summary: In Sunoco's July 9, 2007, email response to a request for additional information, Sunoco requested that it be allowed to burn hazardous waste while performing periodic lens cleaning of the infrared combustion temperature monitor.

> Comment Response: Sunoco's email response indicated that periodic lens cleaning could be required anywhere from several times a year to monthly. Thus, it appears that routine cleaning can and should be scheduled when hazardous waste is not being burned. If, however, a thorough preventive maintenance program cannot eliminate the need for occasional, unscheduled lens cleaning, the Department will allow it while continuing to burn waste under certain conditions (e.g., short, finite time period and not concurrent with CO calibration). Revised V.I.5 of the permit contains such an exclusion.

> Action: Condition V.I.5 of the draft permit has been renumbered V.I.6 in the final permit. The final permit contains a new V.I.5 that provides for the burning of hazardous waste while cleaning the lens of the infrared combustion temperature monitor provided that the period of time during which temperature is not monitored during lens cleaning does not exceed a timeframe authorized by the Department and provided that lens cleaning is not done during CO monitor calibration. Although this is an approved condition of the permit, it will not take effect until Sunoco submits an adequate demonstration of the necessity and received approval from the Department. If approved, the Department will specify the maximum allowable timeframe.

**END** 



### Pennsylvania Department of Environmental Protection

#### Southeast Region

#### PERMIT PROCESS INFORMATION

June 2004

#### Permit Coordination:

Your permit application will be sent to other regulatory programs within DEP for a preliminary review to determine if other permits are required for the activity you are proposing. If it appears other permits are necessary, you will be sent applications for those regulated activities. The coordination of the permit application reviews will be the responsibility of the Assistant Regional Director, John J. Kennedy, P.E., who can be reached at 484-250-5940.

#### Administrative Review:

Administrative reviews vary slightly by program, but generally include checking for the appropriate signatures, filing fees, notarizations, maps, and application forms. The purpose of the administrative completeness review is to determine whether information and forms are provided. It is not to evaluate the quality or content of the information. Administrative reviews are generally conducted within 20 days of the receipt of the application.

If your application is administratively deficient, you will be notified by phone or letter. You will be given a reasonable time frame in which to submit the required information. If the information is not submitted within that time frame, the application will be returned to you without action by DEP.

When an application is determined to be administratively complete, it will be accepted for technical review by the Department. This means that the Department will initiate the technical review of the application. You will be notified by letter that your application has been accepted. At that time, you will be given the name and phone number of the person to whom your application has been referred for review.

#### Technical Reviews:

Technical reviews begin once an application is deemed administratively complete and are performed by one or more of DEP's professional staff. The technical review includes an analysis of the proposal for potential adverse environmental impacts; the completeness, clarity, and soundness of engineering proposals; conformance with applicable statutes and regulations; and analysis of comments submitted by the public. Please note, applications containing major technical errors will not be reviewed by the agency. Rather, they will be returned with a request that the applicant take more care in preparing the application.

A critical part of the technical review process is the review of comments from the general public and other governmental agencies. Comments may be solicited as a result of publishing a notice of the permit request or draft permit in the <u>Pennsylvania Bulletin</u> and newspapers of general circulation, circulating the application to other governmental agencies, or through public meetings or hearings. Unsolicited comments in the form of letters and petitions are also given consideration.

SUNOCO INC.

# 1000-FM-OA0002 Rev. 9/2004

### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### LICENSING/PERMIT QUESTIONNAIRE

We are looking for ways to improve our service to the public and the regulated community. Please take a few moments to respond to the following questions and statements about your recent experience in applying for a permit. Your comments and recommendations are important to us. A pre-addressed return envelope is enclosed for your use. If you have any questions regarding this questionnaire, please call the Office of Administration at (717) 787-7116. We thank you for providing us with this information

1. For what type of license or permit did you apply? Please see the reverse for license/permit types and enter the number that precedes the appropriate permit type.  2. Are you the   Applicant   Consultant   Consultant   Both    3. Was the permit application prepared by the   Applicant   Consultant   Both    4. Please indicate the county in which the facility or activity exists    5. How long did it take to get your license/permit? Please specify    6. Do you think this was:   Too Long   Reasonable   Faster Than Expecte    7. Did you have to resubmit or revise your application?   Yes   No    1. If yes, why?   Administratively incomplete   Technical Errors   Other (Explain)    8. Did you attend a pre-application conference with DEP?   Yes   No    9. Did DEP staff visit the site or facility during the course of the permit review?    10. Had you previously applied for any DEP permit?   Yes   No    11. The Department provides a reasonable explanation of all administrative requirements of the application. Strongly Agree   Agree   Disagree   Strongly Disagree   Agree   Disagree   Strongly Disagree   Strongly Disagree   Agree   Disagree   Strongly Disagree   Agree   Disagree   Strongly Disagree   Strongly Disagree   Agree   Disagree   Agree   Disagree   Strongly Disagree   Agree   Disagree   Strongly Disagree   Agree   Disagree   Agree   Disagree   Strongly Disagree   Agree   Disagree   Strongly Disagree   Agree   Disagree   Agree   Disagree   Disagree   Strongly Disagree   Agree   Disagree   Disagree   Disagree   Disagr	_Соилту
3. Was the permit application prepared by the Applicant Consultant Both  4. Please indicate the county in which the facility or activity exists  5. How long did it take to get your license/permit? Please specify  6. Do you think this was: Too Long Reasonable Faster Than Expecte  7. Did you have to resubmit or revise your application?  16 yes, why? Administrative Incomplete Technically Incomplete  27 Administrative Errors Technical Errors Other (Explain)  8. Did you attend a pre-application conference with DEP? Yes No  9. Did DEP staff visit the site or facility during the course of the permit review?  28 Yes No  19. Did DEP staff visit the site or facility during the course of the permit review?  39 Yes No  100 Had you previously applied for any DEP permit? Yes No  101 The Collowing set of statements concern your feelings about certain aspects of DEP's permitting process. Please circle the one resets describes your feelings  101 The Department provides a reasonable explanation of all administrative requirements of the application.  102 Strongly Agree Agree Disagree Strongly Disagree  103 Agree Disagree Strongly Disagree  104 Agree Disagree Strongly Disagree  105 Strongly Agree Agree Disagree Strongly Disagree  106 Strongly Agree Agree Disagree Strongly Disagree  107 Strongly Agree Agree Disagree Strongly Disagree  108 Strongly Agree Agree Disagree Strongly Disagree  109 Strongly Agree Agree Disagree Strongly Disagree  110 Strongly Agree Agree Disagree Strongly Disagree  111 Nas treated courteously and professionally by DEP staff Strongly Agree Agree Disagree Strongly Disagree  112 Agree Disagree Strongly Disagree  113 DEP staff presented a professionally by DEP staff Strongly Agree Agree Disagree Strongly Disagree	_Соилту
Please indicate the county in which the facility or activity exists  How long did it take to get your license/permit? Please specify  Do you think this was:	_County
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7. Did you have to resubmit or revise your application?  If yes, why?   Administratively Incomplete   Technically Incomplete   Administrative Errors   Technical Errors   Other (Explain)  8. Did you attend a pre-application conference with DEP?   Yes   No  9. Did DEP staff visit the site or facility during the course of the permit review?   Yes   Number of Visits   No   Unknown  10. Had you previously applied for any DEP permit?   Yes   No  The following set of statements concern your feelings about certain aspects of DEP's permitting process. Please circle the one releast describes your feelings  11. The Department provides a reasonable explanation of all administrative requirements of the application. Strongly Agree   Agree   Disagree   Strongly Disagree   Agree   Disagree   Strongly Disagree    12. The Department provides a reasonable explanation of all technical requirements of the application. Strongly Agree   Agree   Disagree   Strongly Disagree    13. DEP staff presented a professional appearance when performing on-site visits or meetings. Strongly Agree   Agree   Disagree   Strongly Disagree    14. I was treated courteously and professionally by DEP staff   Strongly Agree   Agree   Disagree   Strongly Disagree    14. I was treated courteously and professionally by DEP staff   Strongly Agree   Agree   Disagree   Strongly Disagree    15. Strongly Agree   Agree   Disagree   Strongly Disagree    16. Agree   Disagree   Strongly Disagree   Strongly Disagree   Disagree   Strongly Disagree   Disagree   Strongly Disagree   Disagree   Disagree   Disagree   Strongly Disagree   Disagree   Disagree   Disagree   Disagree   Agree   Disagree   Disagree	
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8. Did you attend a pre-application conference with DEP?   Yes   No   9. Did DEP staff visit the site or facility during the course of the permit review?   Unknown   10. Had you previously applied for any DEP permit?   Yes   No   11. The Department provides a reasonable explanation of all administrative requirements of the application. Strongly Agree   Agree   Disagree   Strongly Disagree   12. The Department provides a reasonable explanation of all technical requirements of the application. Strongly Agree   Agree   Disagree   Strongly Disagree   13. DEP staff presented a professional appearance when performing on-site visits or meetings. Strongly Agree   Agree   Disagree   Strongly Disagree   14. I was treated courteously and professionally by DEP staff   Strongly Agree   Agree   Disagree   Strongly Disagree   14. I was treated courteously and professionally by DEP staff   Strongly Agree   Agree   Disagree   Strongly Disagree   1	
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Yes	
The following set of statements concern your feelings about certain aspects of DEP's permitting process. Please circle the one releast describes your feelings  11. The Department provides a reasonable explanation of all administrative requirements of the application.  Strongly Agree Agree Disagree Strongly Disagree  1 2 3 4  12. The Department provides a reasonable explanation of all technical requirements of the application.  Strongly Agree Agree Disagree Strongly Disagree  1 2 3 4  13. DEP staff presented a professional appearance when performing on-site visits or meetings.  Strongly Agree Agree Disagree Strongly Disagree  1 4 14. I was treated courteously and professionally by DEP staff  Strongly Agree Agree Disagree Strongly Disagree  1 2 3 4  14. I was treated courteously and professionally by DEP staff  Strongly Agree Agree Disagree Strongly Disagree  1 2 3 4	
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15. Do you have suggestions for improvements to the licensing or permit application process? (Attach additional sheets as need	
	ed.)

### **BONDING SURVEY**

1.	I was treated courteously and professionally by DEP Staff in Certification, Licensing and Bonding in Harrisburg								
	Strongly Agree	Agree 2	Disagree 3	Strongly Disagree 4					
2.	I was treated courteously	and profession	nally by DEP staff in the Regional/District Office.						
	Strongly Agree 1	Agree 2	Disagree 3	Strongly Disagree 4					
3.	What type of bond did yo	ou submit?	Surety	CollateralFee					
4.	How many days passed from the date that you submitted your bond until you were notified of it approval?								
	Number of Days								
5.	. If the bond was not approved, how many times did you have to resubmit your bond?								
	Numbers of Times								
6.	. How many days did it take you to make corrections and resubmit the bond?								
	Number of Days								
7.	The Department provided a reasonable explanation of all requirements for proper bond completion.								
	Strongly Agree	Agree 2	Disagree 3	Strongly Disagree 4					
8.	The Department performed professionally in review and approval of my bond.								
	Strongly Agree	Agree 2	Disagree 3	Strongly Disagree 4					